DOCUMENT RESUME

ED 154 148 CE 015 595

AUTHOR Dale, Dorothy
TITLE A Follow-Up Study of the Master of Science and Education Specialist Degree Programs in Vocational Education and a Follow-Up System Suitable for an Educational Institution.
INSTITUTION Wisconsin Univ. - Stout, Menomonie. Center for Vocational, Technical and Adult Education.
PUB DATE Aug 75
NOTE 226p.; Parts of this document may not reproduce well due to light type, and materials in Appendix B may not reproduce well due to small, broken type; Master's Thesis, University of Wisconsin - Stout

EDRS PRICE MF-$0.83 HC-$12.71 Plus Postage.
DESCRIPTORS Employer Attitudes; Followup Studies; Graduate Study; Graduate Surveys; Industrial Arts; Job Skills; *Masters Degrees; *Needs Assessment; Performance; Performance Criteria; Personnel Needs; Professional Training; Program Effectiveness; *Program Evaluation; Program Improvement; *Specialist in Education Degrees; Technical Education; *Vocational Education; Vocational Followup

ABSTRACT

The purpose of this study was to determine the extent to which the Master of Science Degree program in Vocational Education and the Education Specialist Degree program in Industrial and Vocational Education at the University of Wisconsin-Stout have prepared the Program graduates of selected years to meet the needs of their present professional roles in a high school, post high school, college or university situation. An evaluation in the form of a follow-up survey was developed and used both for graduates and employers of graduates to assess degree program procedures and techniques used to increase professional competence. A survey of 212 program graduates collected the following information (189 persons responded): personal data including educational and occupational information, attitudes about selected components of the graduate program, and suggestions for program improvement. Additionally, eighty-six employers were surveyed to evaluate the graduates' vocational preparation. Conclusions drawn from the analysis of the results were grouped according to two categories: (1) Program Performance and (2) Client Performance. Analysis of the responses indicated that the programs are effective in preparing students for their professional roles. (Thirty-two specific conclusions are presented.) Fourteen recommendations were submitted based on the results and conclusions of the study. (A bibliography and an extensive appendix containing the survey instrument and related materials are included in this document.) (VB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED154148

A FOLLOW-UP STUDY OF THE MASTER OF SCIENCE AND EDUCATION SPECIALIST DEGREE PROGRAMS IN VOCATIONAL EDUCATION

and

A FOLLOW-UP SYSTEM SUITABLE FOR AN EDUCATIONAL INSTITUTION

By

Dorothy Dale

A Thesis

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Science

With a Major in

Vocational Education

Approved: Six Semester Credits

Harold Halfin
Investigation Adviser

Thesis Committee Members:

Harold Halfin
Orville N. Glass
Nelson McConnell

The Graduate College
University of Wisconsin - Stout

August, 1975

CE 015 595

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Dorothy Dale

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

A FOLLOW-UP STUDY OF THE MASTER OF SCIENCE AND EDUCATION SPECIALIST DEGREE PROGRAMS IN VOCATIONAL EDUCATION

and

A FOLLOW-UP SYSTEM SUITABLE FOR AN EDUCATIONAL INSTITUTION

By

Dorothy Dale

A Thesis

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Science

With a Major in

Vocational Education

Approved: Six Semester Credits

Harold Halfin

Investigation Advisor

Thesis Committee Members:

Harold Halfin

Orville Nelson

Melvin Runnalls

The Graduate College
University of Wisconsin - Stout

August, 1975

ACKNOWLEDGMENTS

The writer wishes to acknowledge with gratitude that in this changing world there are those basic human qualities of caring and sharing which do not change and which give rise to the true joys and satisfactions of life.

For the continual reaffirmation of this personal belief while working toward a mutual goal, the author is thankful to family and friends.

August, 1975 Dorothy Dale

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	ii
LIST OF TABLES	vii
LIST OF FIGURES	ix
Chapter	
1. INTRODUCTION	1
STATEMENT OF THE PROBLEM	3
RESEARCH GOALS	3
BACKGROUND AND SIGNIFICANCE	4
DEFINITION OF TERMS	8
LIMITATIONS OF THE STUDY	9
2. REVIEW OF LITERATURE	10
"PROGRAM EVALUATION" DEFINED	11
METHODS OF EDUCATIONAL EVALUATION	15
RELATION OF THE FOLLOW-UP TO EDUCATIONAL EVALUATION	18
PREVIOUS FOLLOW-UP STUDIES	20
COMPONENTS AND CHARACTERISTICS OF A VALID AND WORKABLE FOLLOW-UP SYSTEM	21
Follow-up Instrument	22
Processing of Data	24
Interpretation and Reporting of Processed Data	28
CHAPTER SUMMARY	30

Page

3. METHODS AND PROCEDURES 32

EVALUATION SYNTHESIS 32

SELECTION OF THE POPULATION 36

DATA COLLECTION PROCEDURES 39

INSTRUMENTATION 40

Information Desired 40

Selected Personal Data 41

Section I. Generic Data 42

Section II. Specific Program Evaluation Data . . . 43

Section III. Suggestions for Program Improvement . 45

Supervisor/Employer Questionnaire 45

FOLLOW-UP SYSTEM 47

Follow-up System Design Model 49

Phase I. Preparation 50

Phase II. Data Collection 52

Phase III. Data Analysis 54

Phase IV. Evaluation 57

Activity Schedule 58

CHAPTER SUMMARY 59

4. RESULTS OF THE STUDY 61

SELECTED PERSONAL DATA 63

SECTION I. GENERIC DATA 71

Item 9. Program Influence on Seven Selected Job Situations 71

Item 10. Reaction to Selected Graduate Program Components 75

Page

Item 11. Program Influence on Personal Competency Development 77

Item 12. Usefulness of Eight Selected Graduate Program Experiences 80

SECTION II. SPECIFIC PROGRAM EVALUATION 88

SECTION III. SUGGESTIONS FOR PROGRAM IMPROVEMENT . . . 104

Item 41. Program Component Reaction 104

Item 42. Subjects or Areas of Study Suggestions . . 109

Item 43. Comments to Improve the Graduate Program . 112

EMPLOYER EVALUATION 118

Educational Preparation Evaluation 119

The Importance of Various Selected Study Areas . . . 128

CHAPTER SUMMARY 130

5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 136

SUMMARY 136

CONCLUSIONS 141

Program Performance 142

Client Performance 145

RECOMMENDATIONS 146

SELECTED BIBLIOGRAPHY 153

APPENDIXES 157

APPENDIX A: FOLLOW-UP CENSUS DECISION-MAKING MATRIX . 160

APPENDIX B: SURVEY INSTRUMENT, FORMAT, AND ACCOMPANYING LETTER OF TRANSMITTAL 162

APPENDIX C: FIRST FOLLOW-UP CORRESPONDENCE AND SECOND FOLLOW-UP CORRESPONDENCE 172

APPENDIX D: EMPLOYER FOLLOW-UP CORRESPONDENCE 175

Page

APPENDIX E: PROGRAM DIRECTOR'S LIST OF TASKS AND COMPETENCIES 177

APPENDIX F: QUESTIONNAIRE RETURN RATE CHART 181

APPENDIX G: DECISION-MAKING PROCESS DETERMINING RELATEDNESS OF OCCUPATIONS TO PROGRAM 183

APPENDIX H: OPEN-ENDED RESPONSE TO ITEM 41. NOT INCLUDED IN BODY OF TEXT 185

LIST OF TABLES

Table		Page
1.	Number and Percent of Questionnaires Returned by M.S. Graduates in Vocational Education	64
2.	Number and Percent of Questionnaires Returned by Ed.S. Graduates in Vocational Education	64
3.	Employment Status of M.S. Graduates in Vocational Education Employed in Educational and Non-Educational Positions	66
4.	Employment Status of Ed.S. Graduates in Vocational Education Employed in Educational and Non-Educational Positions	66
5.	Relatedness of Educational Program to Present Job for Employed Graduates	67
6.	M.S. and Ed.S. Graduates Completing Additional Educational Work	67
7.	Intentions of M.S. and Ed.S. Graduates in Vocational Education for further Post Graduate Degree Work	69
8.	Placement Information on the First Position Obtained Directly Following Graduation for M.S. and Ed.S. Graduates in Vocational Education	70
9.	Degree of Influence of the Graduate Program in Vocational Education on Seven Selected Job Situations for M.S. and Ed.S. Graduates	72
10.	Reaction of M.S. and Ed.S. Graduates in Vocational Education to Eight Selected Graduate School Program Components	76
11.	Graduates' Ratings of the Degree That Their Graduate Program Influenced Personal Development in Eight Selected General Competencies	79
12.	Graduates' Ratings of the Degree of Usefulness of Eight Possible Graduate School Experiences	82

Table — Page

12. M.S. Graduates' Recommendations for Keeping, Dropping or Replacing Eight Possible Graduate School Program Experiences 85

14. Ed.S. Graduates' Recommendations for Keeping, Dropping or Replacing Eight Possible Graduate School Program Experiences 87

15. M.S. Graduates' Ratings of the Degree of Competence Attained in Thirty-one Selected Professional Competencies as a Direct Result of Graduate Program Paticipation 90

15a. Ranks Those Competencies Receiving a Median Value of 0.5 to 2.5 90

15b. Ranks Those Competencies Receiving a Median Value of 2.6 to 4.5 91

15c. Ranks Those Competencies Receiving a Median Value of 4.6 to 6.5 94

16. Ed.S. Graduates' Ratings of the Degree of Competence Attained in Thirty-one Selected Professional Competencies as a Direct Result of Graduate Program Participation 96

16a. Ranks Those Competencies Receiving a Median Value of 0.5 to 2.5 96

16b. Ranks Those Competencies Receiving a Median Value of 2.6 to 4.5 97

16c. Ranks Those Competencies Receiving a Median Value of 4.6 to 6.5 99

17. Employers' Ratings of the Degree of Preparatory Skill Exhibited by Program Graduates in Nine Selected General Competencies 123

18. A Mean Value Comparison of Graduates' and Employers' Ratings of the Degree of Influence of the Graduate Program on the Graduate's Personal Development in Eight Selected General Competencies 126

19. Employers' Ratings of the Degree of Importance Assigned to Twenty-nine Selected Educational Study Areas 129

LIST OF FIGURES

Figure		Page
1.	Design of the Educational Program	33
2.	The Follow-Up Study: A Method of Program Evaluation, It's Relationship to the Educational Program	35
3.	Follow-Up System Design Model	49
4.	Graduate Follow-Up System Development: Activity Schedule	58
5.	A Comparison of M.S. and Ed.S. Graduates' Ratings of the Degree of Influence of the Graduate Program in Vocational Education on Seven Selected Job Situations	74
6.	A Comparison of M.S. and Ed.S. Graduates' Reaction to Eight Selected Graduate School Program Components	78
7.	A Comparison of M.S. and Ed.S. Graduates' Ratings of the Degree That Their Graduate Program Influenced Personal Development in Eight General Competencies	81
8.	A Comparison of M.S. and Ed.S. Graduates' Ratings of The Degree of Usefulness of Eight Possible Graduate School Experiences	84
9.	Criterion Levels of Performance	103
10.	A Comparison of Employers' Ratings of the Degree of Preparatory Skill Exhibited by M.S. and Ed.S. Graduates in Nine Selected Competencies	124

Chapter 1

INTRODUCTION

Evaluation should be considered an integral part of the decision-making process. It has been with us since early attempts at formal education were made, but only recently has there been an attempt to establish a strict and comprehensive evaluation methodology.

The Chinese emperor in 2200 B.C. examined his officials every third year to determine their fitness for continuing in office. Robert Thorndyke in the early 1900's helped provide the impetus for early adoption of measuring techniques to assess or evaluate changes in learner behavior. Ralph Tyler's Eight Year Study, conducted in the 1930's, concentrated on the evaluation of student outcomes. In the 1950's James Coleman conducted an evaluative study focused on the opportunities available to minorities within the United States.

In 1963 the passage of the Vocational Education Act required each state to establish a state advisory committee to be responsible for evaluation within each state. However, most of the advisory committees did not assume the responsibility for evaluation until the passage of the Elementary and Secondary Education Act in 1965. ESEA required that each project conducted under Titles I and III contain an evaluation component to include the evaluation of process and product. In 1968, the Vocational Education Amendments to the 1963 act were passed re-emphasizing the requirement for evaluation on the part of advisory committees within each state.

The assessment of student achievement formed the substance of the first formal evaluation activity in general education. Later, especially in the area of occupation-related education programs, the scope of evaluation was broadened to include follow-up of graduates from programs through direct evaluation response from the graduates and/or from the employers of graduates. Accreditation visits and/or staff evaluation also came into the picture. Since 1970 the National Council for Accreditation of Teacher Education (NCATE) has maintained a standard for evaluation of graduates which requires that the affiliated institution conduct a well defined plan for evaluating the teachers and other professional school personnel it prepares at the graduate level and futher requires that the institution uses the evaluation results in the study, development, and improvement of its advanced programs.

The evaluation methodology presented in this study utilizes follow-up procedures researched and developed by the author. The evaluation procedures have been adapted to the evaluation of the academic program housed within the Graduate College, University of Wisconsin-Stout. It is the author's opinion however, that program evaluation methodology should not be strictly limited to follow-up of students but rather is one integral component of a well developed evaluation system.

The Dean of the Graduate College and the Director and Committee members of the Graduate Programs in Vocational Education (Master of Science Degree) and Industrial and Vocational Education (Education Specialist Degree) at the University of Wisconsin-Stout are aware of the changing needs of the students they prepare. This follow-up study and the follow-up system developed herein have been designed and conducted to aid in the total evaluation of the Graduate Programs noted

here as well as for the benefit of the entire Graduate College. Methodology and procedures presented in this study can be readily adapted to the evaluation of other academic programs in other institutions as well.

STATEMENT OF THE PROBLEM

The problem of this study was to determine the extent to which the Master of Science Degree Program in Vocational Education and the Education Specialist Degree Program in Industrial and Vocational Education at the University of Wisconsin-Stout have prepared the Program graduates of selected years to meet the needs of their present professional roles in a high school, post high school, college or university situation. Evaluation in the form of a follow-up survey was developed and used both for graduates and for the employers of graduates to assess Program procedures and techniques used to increase professional competence for the graduate serving as teacher, coordinating teacher, coordinator, supervisor, local vocational education coordinator, or administrator of vocational education.

This study includes construction of a follow-up system, suitable for an educational institution, incorporating built-in measures for feedback and program assessment in relation to stated Program goals.

RESEARCH GOALS

The Master of Science Degree Program in Vocational Education and the Education Specialist Degree Program in Industrial and Vocational Education at the University of Wisconsin-Stout are designed to increase the professional competence of those who plan to serve in a high school, post high school, college or university program as a teacher, coordinating teacher, coordinator, supervisor, local vocational education coordina-

tor, or administrator of vocational education. The primary objective of this study was to measure the effectiveness of the Program in meeting its stated purpose.

A secondary objective of this study was the construction of a follow-up system suitable for an educational institution to serve as an on-going monitoring system of program evaluation.

BACKGROUND AND SIGNIFICANCE

Systematic program evaluation through periodic follow-up surveys of graduates and their employers is an increasingly meaningful type of research. Loeffler writes:

> Society and the institutions of society are changing rapidly. The educational institutions of our society are no exception. Schools are striving to keep their programs of study effective and relevant to the needs of their students.[1]

Smith, Krouse, and Atkinson feel that:

> A continuous evaluation of the school in terms of their effectiveness in meeting accepted values and purposes is fundamental to a well-developed and functioning educational program in our changing society.[2]

The Wisconsin Board of Vocational, Technical and Adult Education identifies technical and economic developments in today's society and envisions their impact upon the occupational world:

Startling developments in science and technology and a rapidly

---

[1]Gordon P. Loeffler, "A Follow-Up Study of 1970 and 1973 Graduates Who Received the Master of Science Degree in Industrial Education," (unpublished Master's Thesis, The Graduate College, University of Wisconsin-Stout, Menomonie, Wis., June, 1974), p. 4.

[2]Edward W. Smith, Stanley W. Krouse, and Mark M. Atkinson, The Educator's Encyclopedia (Englewood Cliffs: Prentice-Hall Inc., 1961), p. 424.

> expanding economy are spelling out important changes in the structure of the occupational world. Specific jobs become obsolescent more frequently, old occupations disappear, and new occupations emerge, not always in foreseeable fashion. The pressures of a rapidly changing technological society make career decision-making by youth, curriculum revisions by staff, and program planning by administrators even more dependent on research and follow-up of students to furnish appropriate data and information needed in developing plans, solving problems, improving instruction, and assessing progress toward achieving the goals of the system.[3]

Accreditation by the National Council for Accreditation of Teacher Education (NCATE) certifies that the institution's programs for preparing teachers and other professional school personnel meet its national standards for accreditation of teacher education. One of these standards developed for post-baccalaureate programs for the advanced preparation of teachers and the preparation of other professional school personnel concerns evaluation, program review, and planning:

> Maintenance of acceptable programs for the advanced preparation of teachers and for the preparation of other professional school personnel requires the systematic evaluation of the quality of the professionals who complete the programs, modification of existing programs, and long-range planning...The ultimate criterion for judging advanced programs is whether they produce graduates who enter the profession and perform effectively. The institution evaluates its graduates at two critical points: when they complete their programs of study, and after they enter the professional roles for which they have prepared...It is assumed that the results of the evaluations made by the institution are reflected in modifications in the preparation programs.[4]

The "Follow-Up Study" has been designed and used as one means of evaluating the effectiveness and relevance of school programs. Follow-

---

[3]"Guidelines for Conducting Periodic Follow-Up Studies," (Madison: Wisconsin Board of Vocational, Technical and Adult Education, 1970), p. ii. (Mimeographed.)

[4]National Council for Accreditation of Teacher Education, Standards for Accreditation of Teacher Education, (Washington, D. C., 1970), p. 15.

up is defined by the Wisconsin Board of Vocational, Technical and Adult Education as "a process by which an educational institution seeks to determine how effectively it is meeting the current and future needs of those it serves" (Guidelines, WBVTAE, p. ii). It is further defined in the Dictionary of Education as:

> (1) the process by which information as to the present status in an area of concern to the guidance or personnel services of an educational institution is obtained from a student or former student; (2) . . .an organized plan for ascertaining the employment and educational status of graduates from vocational programs in order to establish the relationship between employment and the vocational training received.[5]

The follow-up study then can be designed to collect objective and tangible evaluation data on educational programs from those very persons who have participated in the programs and are therefore in a unique position to provide feedback.

The need for continuous follow-up studies within the educational institution has been discussed in the foregoing paragraphs. What then of the timing for such a study? Thomas indicates that "...a short follow-up inquiry be sent to graduates one and three years after they have received the master's degree."[6] Ader recommends that "every two or three years the Graduate Studies Program at Stout State College continue its policy of follow-up studies of graduate students."[7] Loeffler

---

[5]Carter V. Good, Dictionary of Education, (third edition, New York: Mc Graw Hill Publishing Co., 1973), p. 246.

[6]Warren G. Thomas, "A Follow-up of the Graduate Students of The Stout Institute with a Major in Industrial Education, 1938-1949" (unpublished Master's thesis, Stout Institute, [University of Wisconsin-Stout], Menomonie, Wisconsin, 1950), p. 106.

[7]Vern L. Ader, "A Follow-up of the Men Who Received the Master of Science Degree in Industrial Education from The Stout Institute, 1952-1955" (unpublished Master's thesis, The Stout Institute, [University of Wisconsin-Stout], Menomonie, Wisconsin, 1956), p. 37.

concludes that an annual follow-up of first and third year graduates of the Program should be continued on a long range basis (Loeffler, p. 117). Wentling and Lawson agree, stating that "A follow-up, especially one carried out on a one-, three-, and five-year interval, may provide useful information regarding the career patterns of former learners."[8]

The most recent (and only) follow-up study undertaken at the University of Wisconsin-Stout concerning the Master of Science graduates of the Vocational Education Program was completed in 1968 by Hunt.[9] His study was undertaken to identify the educational and work experience backgrounds of the graduates with a Master's Degree in Vocational Education. The thesis being that "the more information that is available on the graduate's background, the more accurate decisions may be made concerning his program at Stout (Hunt, p. 2). In Hunt's study, no attempt was made to evaluate the Graduate Vocational Education Program as a whole. No formal evaluation study of the Education Specialist Degree Program in Industrial and Vocational Education has been undertaken since the inception of the program in 1970.

With the foregoing information in mind, emphasized by the present Graduate College Administration and Program Director, it would appear that full implementation of program evaluation in the Master of Science Program in Vocational Education and the Education Specialist Program in

---

[8]Tim L. Wentling and Tom E. Lawson, Evaluating Occupational Education and Training Programs (Boston, Massachusetts: Allyn and Bacon, Inc., 1975), p. 125.

[9]William J. Hunt, "A Follow-Up Study of Graduates with a Master's Degree in Vocational Education," (unpublished Master's thesis, Stout State University, [University of Wisconsin-Stout], Menomonie, Wisconsin, 1968).

Industrial and Vocational Education is worthwhile, relevant and necessary if the Programs are to meet the needs of those served.

DEFINITION OF TERMS

The following definitions are set forth for this study to prevent any confusion or misunderstanding that might occur for the reader of this paper:

Educational Evaluation

"Educational evaluation is the process of delineating, obtaining, and providing useful information for judging decision alternatives."[10] "...every aspect of a program, not just its outcomes, is involved in evaluation,"[11] ...measuring "the effects of a program against the goals it set out to accomplish as a means of contributing to subsequent decision-making about the program and improving future programming."[12]

The terms "educational evaluation" and "program evaluation" are used interchangeably in this study.

Follow-up

> The follow-up is a procedure to gather data about former students. Principle tools employed are record analysis, observation of behavior, interviews, and questionnaires, or a combination of such devices. It is a type of institutional research directed toward improvement of school and district services (Guidelines, WBVTAE, p. 5).

---

[10] Daniel L. Stufflebeam, W. J. Foley, W. J. Gephart, E. G. Guba, R. L. Hammond, H. O. Merriman, M. M. Provus, Educational Evaluation and Decision-Making, PDK National Study Committee on Evaluation (Itaska, Illinois: F. E. Peacock Publishers, Inc., 1971), p. 40.

[11] Malcolm M. Provus, Discrepancy Evaluation (Berkeley, California: McCutchan Publishing Corporation, 1971), p. 12.

[12] Carol H. Weiss, Evaluation Research (Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1972), p. 2.

The Program

The Master of Science (M.S.) Degree Program in Vocational Education and the Education Specialist (Ed.S.) Degree Program in Industrial and Vocational Education at the University of Wisconsin-Stout, Menomonie, Wisconsin.

Graduates

M.S. Graduates are those students who graduated from the Master of Science Degree Program in Vocational Education at the University of Wisconsin-Stout, Menomonie, Wisconsin, in 1968, 1969, 1970, 1971 and 1974.

Ed.S. Graduates are those students who graduated from the Education Specialist Degree Program in Industrial and Vocational Education at the University of Wisconsin-Stout, Menomonie, Wisconsin in 1970, 1971, 1972, 1973 and 1974.

LIMITATIONS OF THE STUDY

This study was limited by the following:

1. The resources available within the University of Wisconsin-Stout to derive personal and academic information concerning the subjects of this study.

2. The ability to recall, the carefulness and the interest with which each subject replied to the questionnaire and the resulting affect upon accuracy of the response.

3. The number of returned, usable questionnaires and the resulting affect upon generalizability.

Chapter 2

REVIEW OF THE LITERATURE

This review of the literature is conducted and organized to research existing studies and procedures relevant to the stated problem in an attempt to gather knowledge and data for answering questions pertinent and applicable to the research goals. The information gathered and detailed herein will also serve as the framework from which decisions on problem solving methods and procedures for this study can be drawn.

"Program Evaluation" must first be defined in view of the context and scope of various definitions held by current educators and researchers in the field. Answers then must be found to questions such as: What valid and reliable methods are presently being used to evaluate an educational program? What are the measurable components of an educational program? How does the follow-up system pertain and relate to the program evaluation process? What studies have been made evaluating the Master of Science Degree Program in Vocational Education and the Education Specialist Degree Program in Industrial and Vocational Education at the University of Wisconsin-Stout? And what are the components and characteristics of a valid and workable follow-up system? This review of the literature will follow the order and sequencing of the foregoing question areas.

"PROGRAM EVALUATION" DEFINED

The evaluation of educational programs is emerging in this decade as a uniquely essential and particularly meaningful type of research. Because it is relatively new to the educational setting, the process of program evaluation is even now undergoing much defining and refining, intensive study and development, scrupulous testing and analysis by a dedicated core of well-qualified educators and researchers. The need for educational evaluation has been shown in the Background and Significance section of this study. Now it is essential that, at the outset, one determines what is meant by program evaluation.

Malcolm Provus outlines five definitions to be considered:

(1) The judgment of authorities about a program;
(2) The opinions of program staff;
(3) The opinions of those affected by a program;
(4) A comparison of actual program outcomes with expected outcomes;
(5) A comparison of an executed program with its design (Provus, p. 10).

He then goes on to reveal that in the first approach "a difference in the judges' standards is often revealed, which leads to some uncertainty whether the program or the judges' standards are being evaluated" (Provus, p. 10). The second and third approaches do provide firsthand accounts of strengths and weaknesses of a program from those who are closest to the actual operation of the program. He terms the fourth approach, e.g., evaluation of program outcomes, as the most current scientific representation of educational evaluation. In this approach pre and post measures of the client's performance are taken according to the appropriate

experimental methodology. In this approach, essential program change is very difficult because of the rigorous evaluation standards made necessary by use of experimental and control groups. Provus' fifth definition of evaluation, as advanced by him holds that:

> ...every aspect of a program, not just its outcomes, is involved in an evaluation. Evaluation is primarily a comparison of program performance with expected or designed program, and secondarily, among many other things, a comparison of client performance with expected client outcomes. This comprehensive comparison of many aspects of actual events with expected events therefore requires the explication of a detailed picture of an entire program at various points in time as the standard for judging performance. These program standards may arise from any source, but under the Discrepancy Evaluation Model they are derived from the values of the program staff and the client population it serves (Provus, p. 12).

Provus feels that such an evaluation system will "generate pertinent, reliable information as the basis for making sound decisions about program development outcomes and needed research" (Provus, p. 10).

Dr. Daniel I. Stufflebeam directed the National Advisory Committee on Evaluation recommended by the Phi Delta Kappa's Research Advisory Committee and Board of Directors. The purpose for the Study Committee was to collect and analyze knowledge of the process of evaluation and to look into models of evaluation with the task of synthesizing and describing a potentially meaningful and relevant new model for the practitioner of program evaluation. One of the first problems he encountered was one of definition. He began by analyzing three commonly accepted definitions of evaluation and outlined them as follows:

(1) The measurement Definition. This definition may be symbolized:

$$E \equiv M.$$

(Evaluation is identical to Measurement.)

(2) The Congruence Definition. This definition may be symbolized:

$$E \equiv (P \cong O).$$

(Evaluation is identical to the congruence between performance and objectives. Especially behavioral objectives.)

(3) The Judgment Definition. This definition may be symbolized:

$$E \equiv PJ.$$

(Evaluation is identical to professional judgment.) (Stufflebeam et. al., pp. 9-15).

Following a careful review and analysis of the advantages and disadvantages of each of the different definitions of evaluation, Stufflebeam concluded at that time: "It is apparent that no definition of evaluation is available that does not have several serious disadvantages" (Stufflebeam et. al., p. 16).

A new definition of evaluation emerged as a result of his study: "Educational evaluation is the process of delineating, obtaining, and providing useful information for judging decision alternatives" (Stufflebeam et. al., p. 40). Two key concepts in the above definition are judging and decision alternatives. Stufflebeam further defines these concepts as:

> Judging. The act of choosing among the several decision alternatives; the act of decision-making (Stufflebeam et. al., p. 43).
>
> Decision alternatives. Two or more different actions that might be taken in response to some situation requiring altered action (Stufflebeam et. al., p. 40).

Weiss conducted an intensive study on program evaluation research wherein research methodology is used to measure program outcomes, comparing program outcome effects with program goals to judge how well the program is doing and to contribute to subsequent decision-making and the improvement of future programming. She describes evaluation research as follows:

> ...evaluation establishes clear and specific criteria for success. It collects evidence systematically from a representative sample of the units of concern. It usually translates the evidence into quantitative terms...and compares it with the criteria that were set. It then draws conclusion about the effectiveness, the merit, the success, of the phenomenon under study (Weiss, p. 2).

Program evaluation is measuring "the effects of a program against the goals it set out to accomplish as a means of contributing to subsequent decision-making about the program and improving future programming (Weiss, p. 4).

Another educator to define evaluation is Terry D. Cornell, coordinator of the Evaluation Services Division of the EPIC Evaluation Center and assistant professor of education at the University of Arizona. He states: "Evaluation may be defined as a systematic procedure of collecting and analyzing information for the purpose of decision-making."[13] This definition coincides closely with that of Soong:

> Program Evaluation is sizing up a situation before making a judgment. It is doing homework before making a decision. It is sorting out the pros and cons, selecting what's good or bad, right or wrong before taking the next step. As a management process, it is a tool for more rational behavior.[14]

The commonality that runs throughout the above current definitions of program evaluation is that they are describing procedures which are clearly designed and aimed at aiding in the educational decision-making process. For purposes of this study, the definitions of program evaluation as proposed by Daniel Stufflebeam, Malcom Provus and Carol Weiss

---

[13]Terry D. Cornell, "A Systematic Approach to Needs Assessment," Educational Accountability Through Evaluation, ed. E. Wayne Roberson (Englewood Cliffs, New Jersey: Educational Technology Publications, 1971), p. 59.

[14]Robert K. Soong and others, Systems Approach to Program Evaluation: An Exploration of Alternatives for the YMCA of Metropolitan Chicago, National Center for Educational Research and Development, ERIC Document ED 060 185, September, 1971, p. 4.

were used as stated in the definition of terms.

METHODS OF EDUCATIONAL EVALUATION

Both Provus and Stufflebeam have developed models for educational program evaluation. Provus depicts the five stages in his Discrepancy Evaluation Model as: (1) Design Stage; (2) Installation Stage; (3) Process Stage; (4) Product Stage; and (5) Program Comparison Stage (Provus, p. 184).

Provus insists that the first task of the evaluator is to make the design of the program explicit. This will present a picture of what the program should be upon which criteria can be based. This is essential if a "comparison of performance in regard to some objective or ultimate state of affairs, some process of ongoing work or some standard (criteria) or model"[15] is to be achieved. This design stage can include:

> ...a resource statement (input), a conversion statement (process), and a product statement (output). The resource statement gives us the notion of the people, goods, facilities, and money involved in the program over time. The conversion statement describes the combination or mixing of the resources to produce some outcome. And the product statement describes the program's outcomes (Gephart, p. 8).

> At stage 2 the standard for judging performance is the program design arrived at in Stage 1. Program performance information consists of field observations of the program's installation. Discrepancy information may be used by the program manager to redefine the program or change installation procedures. At Stage 3 performance information is collected on a program's interim products. The standard used is the part of the program design that describes the relationship between program processes and interim products. Discrepancy information is used either to redefine process and relationship of process to interim product or to improve control

---

[15]William J. Gephart, Robert B. Ingle, and Gary Saretsky, Similarities and Differences in the Research and Evaluation Processes, Developed from discussions and follow-up of the National Symposium for Professors of Educational Research (Bloomington, Indiana: Phi Delta Kappa, 1973), p. 7.

> of the processes being used in the field. At Stage 4 the standard is the part of the program design that refers to terminal objectives. Program performance information consists of criterion measures used to estimate the terminal effects of the project. At this point in time, if decision makers have more than one project with similar outcomes available to them for analysis, they may elect to do a cost-benefit analysis to determine program efficiency (Provus, p. 185).

Consistent with his definition of evaluation set forth previously in this study, Stufflebeam outlines the CIPP evaluation model as including four types of evaluation: Context, Input, Process, and Product (Stufflebeam et. al., pp. 218-235).

> Context evaluation...defines the relevant environment, describes the desired and actual conditions pertaining to that environment, identifies unmet needs and unused opportunities, and diagnoses the problems that prevent needs from being met and opportunities from being used. Diagnosis of problems provides an essential basis for developing objectives whose achievement results in program improvement (Stufflebeam et. al., p. 218).

This evaluation can answer questions such as: "What unmet needs exist in the context served by a particular institution?" and "Which of a set of objectives are most feasible to achieve?"[16]

Input evaluation describes and analyzes "the available human and material resources, solution strategies, and procedural designs for relevance, feasibility and economy in the course of action to be taken" (Gephart, p. 25). This evaluation can answer questions such as: "Are the given objectives stated operationally, and is their accomplishment feasible?" and "Is the particular strategy based upon valid theoretical principles" (Stufflebeam et. al. p. 229).

Once a designed course of action has been approved and implementation has begun, process evaluation is necessary to provide periodic

---

[16]Daniel L. Stufflebeam, "The Use of Experimental Design in Educational Evaluation," Journal of Educational Measurement, 8, No. 4 (Winter 1971), p. 269.

> feedback to persons responsible for implementing plans and procedures. Process evaluation has three main objectives - the first is to detect or predict defects in the procedural design or its implementation during the implementation stages, the second is to provide information for programmed decisions, and the third is to maintain a record of the procedure as it occurs (Stufflebeam et. al. p. 229).

This evaluation can answer questions such as: "Are the facilities and materials being used adequately and appropriately?" and "What major procedural barriers need to be overcome during the present project cycle" (Stufflebeam, JEM, p. 271).

> The general method of product evaluation includes devising operational definitions of objectives, measuring criteria associated with the objectives of the activity, comparing these measurements with predetermined absolute or relative standards, and making rational interpretations of the outcomes using the recorded context, input, and process information (Stufflebeam et. al., p. 232).

This evaluation can answer questions such as: "Are objectives being achieved?", "To what extent were the varied needs of individual students met as a result of the project?" and "What is the long-range worth of the actual achievements in relation to the mission of the host institution?" (Stufflebeam, JEM, p. 272).

Weiss gives brief attention to various traditional evaluation methods and then recommends a series of strategies:

> Possibly the most important theme...is the classification of the component parts of the program. Each element (of activity, approach, structure, participant, and so on) that is presumed likely to affect outcomes is observed, defined, and classified...We then consider these core issues:
> (1) Formulating the program goals that the evaluation will use as criteria
> (2) Choosing among multiple goals
> (3) Investigating unanticipated consequences
> (4) Measuring outcomes
> (5) Specifying what the program is
> (6) Measuring program inputs and intervening processes
> (7) Collecting the necessary data (Weiss, pp. 25-26).

Each of the above seven steps is important to the program evaluator who will be attempting to formulate answers for educational decision

makers as to what extent the program is succeeding in reaching its goals.

Analysis of the Provus Discrepancy Evaluation Model, the Stufflebeam CIPP evaluation model, and the strategies of Weiss reveals many evaluational procedures that are common and consistent. This analysis and the resultant synthesis is discussed in Chapter 3 and will form the basis for the methods and procedures followed in this study.

RELATION OF THE FOLLOW-UP TO EDUCATIONAL EVALUATION

Initial definition and purpose of the follow-up study has been discussed in the Background and Significance section of this study. Further research reveals that many educators feel the follow-up study is a valuable method of obtaining information for program evaluation. McKinney conducted a study outlining the purpose, use and procedure involved in the follow-up of a vocational education program. He concludes that:

> ...follow-up studies constitute one of our most valuable techniques for assessing educational system outcomes...Follow-up studies can produce valid and reliable findings useful in making sound educational decisions at the local, area, state, and national levels.[17]

McKinney further postulates that the follow-up can serve many purposes: that of determining the extent to which objectives are being met, acting as a motivating force for change, and indicating areas for decision regarding program addition, deletion or revision (McKinney, p. 6). He feels that the follow-up serves in "eliciting evaluative

---

[17] Floyd L. McKinney and Charles Oglesby, Developing and Conducting Follow-Up Studies of Former Students, Kentucky Research Coordinating Unit, ERIC Document ED 056 240, September, 1971, p. 26.

responses from former students reflecting the success of the vocational education program in preparing them for employment" (McKinney, p. 7).

Somers chose the follow-up study as the instrument with which to indicate the effectiveness of vocational technical programs.[18] A national sample of vocational students who graduated from high school, post-secondary school and junior college vocational programs in 1966 were surveyed three years later "to provide some measures of the effectiveness of such education" (Somers, p. 1).

The Wisconsin Board of Vocational, Technical and Adult Education concludes that the "Follow-up of former students is one means for providing data and information to be used in program evaluation" (WBVTAE, p. 5).

Continuing on this point, Alfred L. Kaisershot asks how one can begin the process of evaluating and updating existing programs. He feels that one tenable route available to most educators is a follow-up of former students and graduates which can be a reliable basis of improving and updating curriculum and teaching programs.[19]

Wentling and Lawson include the follow-up as a means of educational evaluation and define its purpose as follows:

> Follow-up studies are designed to evaluate the product of career programs--the graduate. The primary goal of such education, the preparation of individuals for employment, can best be assessed by examining the placement records of graduates and gathering job performance data from employers. In addition, very important

---

[18]Gerald G. Somers and Others, The Effectiveness of Vocational and Technical Programs: A National Follow-Up Survey. Final Report. (Madison, Wisconsin: Center for Studies in Vocational and Technical Education, 1971), p. 11.

[19]Alfred L. Kaisershot, "A Case for the Follow-Up Study," The Balance Sheet, 53 (March, 1972), pp. 248-249.

> information regarding the strengths and weaknesses of a program may be gathered from the former students, who are in the best position to judge such characteristics...A follow-up, especially one carried out on a one-, three-, and five-year interval, may provide useful information regarding the career patterns of former learners (Wentling, pp. 124-125).

Inclusion of employer input in follow-up evaluation is deemed highly important by Wentling and Lawson.

> An employer survey can provide valuable evaluative information to the managers of occupational programs...An employer survey may vary from a simple survey of the number of available jobs in specific occupations to an estimation or rating of the competencies held by former students (Wentling, p. 166).

Wentling and Lawson include innovative and helpful information on the design, development and administration of the employer survey as well as summarizing, presenting and utilizing the results (Wentling, pp. 171-192).

PREVIOUS FOLLOW-UP STUDIES

Graduate studies granting a Master's Degree in Vocational Education at the University of Wisconsin-Stout have been offered since 1935. From the time of the Program's inception through December, 1974, five hundred thirty-three graduates have been prepared in this field. The Education Specialist Degree Program in Industrial and Vocational Education has been offered since 1970 with thirty-two graduates being granted degrees through December, 1974.[20]

Hunt's Follow-Up Study of graduates with a Master's Degree in Vocational Education (1962 through 1967) represents the most recent and only follow-up study of these graduates undertaken at the University

---

[20]Graduate College Records, University of Wisconsin-Stout.

of Wisconsin-Stout in the graduate Vocational Education Program. In his study Hunt purposes to identify the educational and work experience backgrounds of the Program graduates hypothesizing that "the more information that is available on the graduate's background, the more accurate decisions may be made concerning his program at Stout" (Hunt, p. 2). Hunt's major recommendation was that a study of the graduates be made to identify competencies needed in the field.

No previous attempt, then, has been made to conduct a systematic program evaluation, to assess the Program procedures and techniques used to increase professional competencies, or to receive feedback from employers evaluating job performance preparation in either the M.S. Vocational Education or Ed.S. Industrial and Vocational Education Degree Programs at UW-Stout.

COMPONENTS AND CHARACTERISTICS OF A FOLLOW-UP SYSTEM SUITABLE FOR AN EDUCATIONAL INSTITUTION

In their Guidelines for Conducting Periodic Follow-Up Studies, the Wisconsin Board of Vocational, Technical and Adult Education sets forth guidelines to give assistance to those educational institutions conducting follow-up studies. They recommend the following administrative procedures be followed:

(1) One person be designated to assume the administrative responsibility of coordinating and conducting the follow-up study.

(2) A required exit form of some type be completed for all graduates.

(3) Student orientation and an appeal for cooperation in the forthcoming follow-up study should be made before the graduates leave the school.

(4) Determination of the survey population be made.

(5) Compilation of addresses be completed.

(6) Objectives, plans, and a calendar of activities be established defining schedule of the initial study and continuing follow-up studies as well as the students involved.

(7) A survey package be developed including a cover letter, a survey instrument and follow-up letters for non-responders. This package should be piloted, evaluated and revised.

(8) Data analysis (summary of responses) be planned for utilizing data processing equipment.

(9) Data interpretation (meanings and relationships) be facilitated into a follow-up report including implications of the results to the user (WBVTAE, pp. viii-16).

McKinney emphasizes the need to involve all significant groups in the follow-up study through a well-developed communication network (McKinney, p. 4). McKinney further emphasizes points (1) through (9) above organizing the procedures into three phases: I. Preparation, II. Data Collection, III. Analysis of Data (McKinney, pp. 24-26).

Follow-up Instrument

McKinney goes on to elaborate on the development of the follow-up instrument, determining this a major concern in doing follow-up studies. Significant instrumentation suggestions developed in his study include:
(1) Program objectives can be stated in performance terms and then translated into criterion question(s). A criterion question is one which states the objective in such a way that an answer is called for which will help measure the attainment of that objective.
(2) Generally speaking, open-ended items should not be used because the varied answers are almost impossible to categorize and summarize.
(3) Questions on demographic data available in school files needlessly increases the length of the questionnaire and should be eliminated. A long questionnaire will yield a lower response rate and higher costs.
(4) The mechanical presentation of the instrument package is very

important with good face validity termed as essential. A professionally mimeographed or printed instrument on colored paper including a stamped, self-addressed envelope tends to result in a higher return.

(5) The timing of the mailing is important. Mailing should be timed so that items arrive on Monday or Tuesday, avoiding "stress" times such as income tax time and holidays. However, follow-up letters to non-responders may require a different strategy. If the first mailings were early in the week, try for a week-end arrival on subsequent mailings to catch "late-in-the-week" performers.

(6) Letters should be signed by someone with which the respondent can easily identify (McKinney, pp. 11-22).

Snelling advocates a personalized approach be incorporated into the questionnaire design by including the respondent's name on the form and having faculty personally sign letters. In his study, which included a follow-up letter personally signed by the college president and sent via air mail special delivery, he elicited a 92.63 percent return.[21]

Parten completed an extensive study on survey procedures designed to serve the dual purpose of textbook and manual.[22] In addition to citing many of the points iterated above concerning the follow-up instrument, Parten cautions that "people who return questionnaires are not representative of the groups to whom the schedules are sent" (Parten, p. 95). This limitation demands that a concentrated effort to follow-up

---

[21]W. Rodman Snelling, "The Impact of a Personalized Mail Questionnaire," The Journal of Educational Research, 63, No. 4 (November, 1969), pp. 127-129.

[22]Mildred Parten, Surveys, Polls, and Samples: Practical Procedures (New York: Harper and Brothers, 1950), p. x.

the non-responders be made. Parten suggests this be done by use of: (1) one or more follow-up letters sent to non-responders at sixteen days following the original mailing and seven days following the first follow-up letter, and (2) after a period of waiting, every second person from among those non-responding to the two follow-up letters can be called by telephone. A cited telephone sample conducted following steps (1) and (2) above brought gratifying results of 97.2 per cent return (Parten, p. 399). These follow-up procedures require the surveyer to keep close tabs on the identity of every person to whom the questionnaire is sent. Either the respondent's name or an identifying number can be placed on the survey and follow-up instruments so that the surveyor will know whether or not a reply has been received (Parten, p. 400).

Parten found that yellow paper gave the highest percentage of returns with pink following closely, and with dark colors not being effective (Parten, p. 161).

In discussing questionnaire length, Parten feels that the survey should be as short as possible to accomplish the objectives. One difficulty with a long questionnaire is that the returns are often poorly filled out (Parten, p. 385). This will require that content - the variety of the topics included - be as limited as possible. Parten cited a study which concluded that "a number of unrelated subjects dealt with is an even more objectionable feature in a questionnaire than is considerable length" (Parten, p. 384).

Processing of Data

Data analysis in its broadest sense includes both the processing of data, whether by machine or by hand, followed by the interpretation

and reporting of the processed data.[23] The data analysis research for this study has been restricted to machine analysis involving techniques allied to the use of computers. The resulting educational follow-up system will be developed for and tailored to an institution which has within its resources the necessary technology and manpower for machine analysis.

Data processing comprises the following functions: precoding, editing, coding, constructing and punching punch cards, and tabulating.[24] Backstrom considers precoding an integral step in the questionnaire design stage. To the extent possible, anticipated responses can be precoded (assigned column and punch position numbers) when the questionnaire is drafted (Backstrom, p. 153). Questionnaires may be either completely or partially precoded. When completely precoded "questionnaires may go straight to the data-processing department without a lot of preanalysis, classifying, and sorting by the researcher."[25] "A partially precoded questionnaire is similar to a completely precoded one, with the exception that codes for the questions not lending themselves to predetermined answers are left out" (Morton, p. 33). Open-ended questions, for example, cannot be precoded; however, they can

---

[23]Charles H. Backstrom and Gerald D. Hursh, Survey Research (Evanston: Northwestern University Press, 1963), pp. 153-168.

[24]J. E. Morton, Handbook for Community Manpower Surveys (Kalamazoo: W. E. Upjohn Institute for Employment Research, 1972), p. 63.

[25]Bryan Moore, Desmond Nuttall and Alan Willmott, Data Collection (Walton Hall Bletchley Bucks, Great Britain: The Open University Press, 1973), p. 8.

be categorized and coded as will be shown in the discussion of coding. Precoding and coding are two separate processes and must not be confused. Precoding is done before the questionnaire is printed and the numbers will be a part of the questionnaire: coding is done by hand on the completed questionnaires.

Editing is essentially the process of inspecting and, when possible, correcting the completed data. The purpose of editing is to eliminate and avoid errors in answers to the questionnaire so that the key punch operator will not be given the responsibility of decision-making in determining which answer to punch (Morton, p. 63). Errors of omission can sometimes be corrected if the possible answers are limited; "e.g., in a yes-no question the correct answer can often be inferred from other entries on the form" (Morton, p. 63).

> The editor should never erase an original entry. He should make editorial entries in a distinctive color, such as red, so that his entries may be distinguished from the interviewer's or respondent's. To correct an answer, he should draw two horizontal lines through it, and place his new entry just above it, with his initials and the date. It is well to keep careful track of all editorial changes for future reference, and also to appraise the quality of the work of both interviewers and editors (Morton, p. 63).

Coding is done to organize the data by numerical categories for transfer from the questionnaire page to machine punched data cards (Backstrom, p. 153). In his study, Backstrom details how each questionnaire item must be assigned to one of the eighty card columns on a punch card. Also, columns must be assigned to sequence or serial identification numbers, the card number when more than eighty columns are required, and any demographic information to be coded. The coding (card column number) of each item can be written in the left margin of the questionnaire page, next to the appropriate column number.

Uniform coding allows the keypunch operator to let the eyes travel quickly down the left side of each page rather than back and forth across each page. Open-ended questions may be coded after reading all responses listing them on a sheet, setting up meaningful answer categories and assigning numbers to the categories (Backstrom, pp. 153-155). The resulting coded pages can be called the key punching format. When coding is particularly intricate, a coding manual can be constructed including all coding decisions and instructions for the coder.

Morton recommends that the construction of both the code and the punch card be performed by the same person who is also familiar with the requirements of the study and with the technology of machine methods of tabulation (Morton, p. 63). The punch card is as a rule divided into eighty vertical columns. Items of information are recorded in these columns which are then called fields. A field can consist of one to eighty columns, depending upon the length of the information to be entered in that field. Each column can accommodate a digit or a letter. The punching of cards is done with a key punch machine. A trained operator can punch data directly from a well coded questionnaire with speed and accuracy (Morton, p. 64).

Machine tabulation of data will yield exact, rapid counts of responses which is a necessary step prior to data comparison. "Print-outs" or summaries by significant demographic items should be planned for in advance and done by machine at this time. Once the results of simple totals and more complex cross-tabulations have been completed, appropriate statistical techniques can be used to find the significance of the differences found (Backstrom, pp. 166-167).

Interpretation and Reporting of Processed Data

Research for this study identifying components and characteristics of a valid and workable follow-up system suitable for an educational institution has been restricted to the utilization of computerized data processing methods. The first task in analysis of results will be the interpretation of computer printouts. These electronically printed sheets may show the number and/or per cent of responses in each category in a particular column which is called a frequency distribution (Backstrom, p. 167). They may also show averages such as mean and/or median as well as measures of dispersion such as standard deviation and/or interquartile range. Correlation coefficients and other statistics deemed important and planned for prior to the coding procedure may also be included (Parten, p. 499). Parten suggests that it is necessary to write in the heading for each column of figures on the printout immediately and in detail or the figures may become meaningless (Parten, p. 471). A thorough understanding of the computer printout is essential to good data reporting, indicating that a conference with the computer technician both prior to and following receipt of the printout is time well spent.

As noted previously, tabulation planning should be undertaken as soon as survey content is established. Therefore, the next step is to translate data into a more understandable design. Both Backstrom (pp. 166-170) and Morton (pp. 14-15) advocate the use of table shells to detail the data so as to avoid concealing facts and to provide for the emphasis of any meaningful and salient patterns and/or relationships. Prepare the table shells on two levels: (1) the "working" tables should contain large quantitites of information providing comprehensive coverage of the subject matter; and (2) the "publication"

tables will show salient and selected data derived from the working tables and arranged to focus attention on important comparisons and relationships (Morton, p. 14). "Report only what you find and not what you want the data to show" (Backstrom, p. 170) is good advice for the scientific researcher. Parten cautions the analyst to be scrupulously careful in constructing the working tables so that they present full summations of items, classified according to the original categories. This original data is then scrutinized for significant relationships which can be transferred and featured in publication tables. It is the publication tables that are included in the body or text of most final reports (Parten, p. 477).

Once the results have been summarized, they should be reported in a simple and meaningful manner. Wentling suggests that the character of the audience for which the report is intended should determine the report format. The results presented should not be a technical research report but should be a report which everyone in the intended audience can understand (Wentling, p. 189).

There are several different techniques or formats for presenting survey results:

(1) Written reports, general or detailed, following a formal or informal research report guide, often times using publication tables;

(2) Graphic reports, including charts, graphs, transparencies, slides;

(3) A combination of (1) and (2);

(4) Verbal reports, sometimes complemented with visuals, hand-out materials and supplementary reports (WBVTAE, p. 17).

In addition, the report should contain an explanation of how the information was collected and suggestions for utilization of results.

CHAPTER SUMMARY

The process of program evaluation is undergoing much change within this decade because of its relative newness to the educational setting. The effects of the changing nature of the process are especially evident in the diverse definitions of program evaluation revealed by the review of the literature. The commonality that was revealed in current definitions held by well-qualified educators and researchers such as Malcolm Provus, Daniel I. Stufflebeam, and Carol Weiss is that program evaluation describes procedures clearly designed and aimed at facilitating the educational decision-making process.

Both Provus and Stufflebeam have developed models describing their methods of program evaluation. Provus holds that every aspect of a program must be explicated in design form and then involved in an evaluation comparing its performance with the expected or designed performance. Along with this comparison, a comparison of output performance with expected output performance must be made. Stufflebeam's model is generally in congruence requiring explication and evaluation of program context, input, process, and product.

Many educators feel that the follow-up process is a reliable and valuable technique for evaluating educational systems. The former student is held to be in a good position to judge the effectiveness of the program as well as being able to provide useful information regarding career patterns of former learners.

There has been a lack of systematic follow-up of graduates of the Master of Science Degree Program in Vocational Education at the University of Wisconsin-Stout. Since 1935 when the Program was first

offered, only the graduates of 1962 through 1967 have been contacted by follow-up and that was for purposes of identifying the graduate's background with the idea that more accurate Program decisions could then be made. There has been no follow-up of graduates of the Education Specialist Degree Program in Industrial and Vocational Education since the program's inception in 1970.

A review of literature related to components and characteristics of a follow-up system suitable for an educational institution revealed both administrative and procedural components of a system design. The design can be facilitated by organizing the activities in phases: I. Preparation; II. Data Collection; III. Analysis of Data.

The mailed questionnaire appears to be an effective method of gathering evaluatory data from Program graduates. Careful attention to results of research into questionnaire design should result in a high percentage of reliable returns. A few examples of such considerations researched include personalizing the survey instrument, working diligently for good face validity of the instrument package, and making a concentrated effort to follow-up non-responders.

Data analysis research for this study was confined to techniques allied to computer processing. It was found that careful attention to the data processing functions of precoding, editing, coding, constructing and punching cards, and tabulating is essential to accurate interpretation and reporting of data.

Chapter 3

METHODS AND PROCEDURES

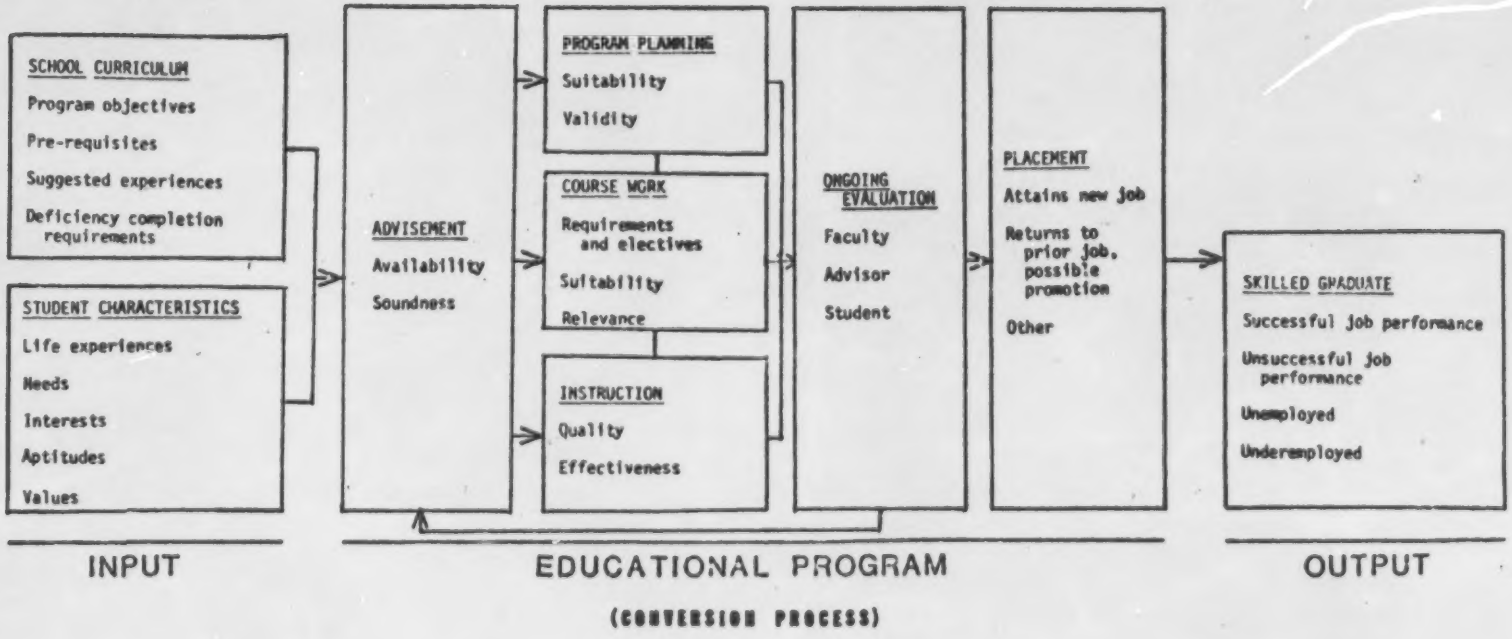
The review of the literature reveals program evaluation procedures detailed by three noteworthy evaluation research educators: Malcolm Provus, Daniel Stufflebeam, and Carol Weiss. Analysis and comparison of their models and strategies reveals the following commonalities and consistencies which are synthesized here and which will form the methodology used for program evaluation in this study.

EVALUATION SYNTHESIS

(1) All aspects of a program are involved in the evaluation process, not just its outcomes. The total program environment, resources, procedures, as well as product, form the evaluation parameters.

(2) The components of the program being evaluated must be made explicit. This model or representation will present a picture of the educational program and will form the program design upon which evaluation criteria can be based. It will also ensure that (1) above (identification of all program aspects) is recognized and explicated. The design developed and utilized in this study is shown in Figure 1 on the following page. It details the resource statement or input, the conversion statement or process, and the product statement or output for an educational program.

FIGURE 1. DESIGN OF THE EDUCATIONAL PROGRAM



Input evaluation can analyze the human and material resources involved in the program over time as well as procedural designs and requirements.

Process evaluation will provide feedback to program planners and managers on the procedural implementation of the program which will form the basis for program decisions. It will also maintain a record of the program in process.

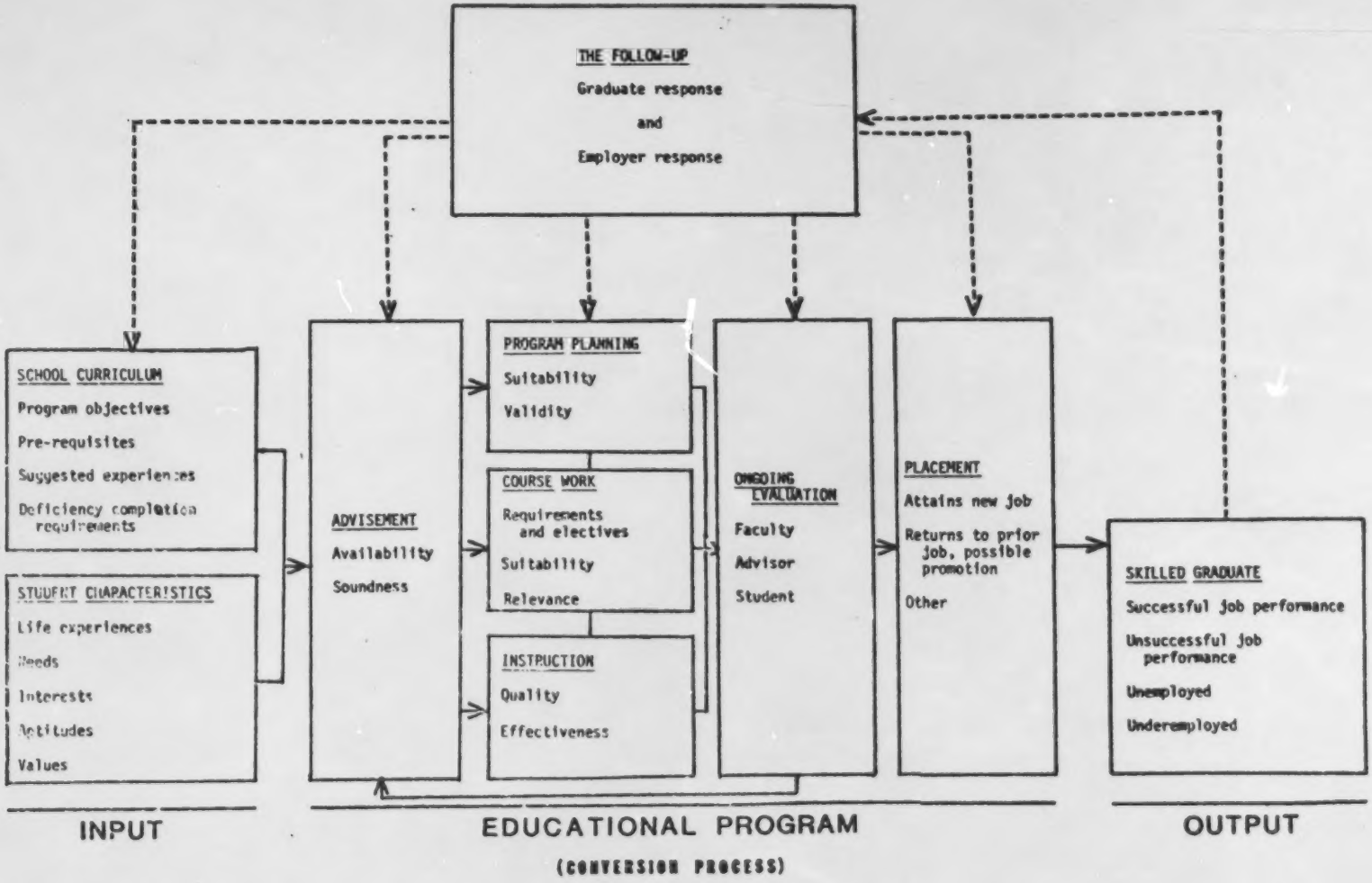
Output evaluation will include operationally defining program objectives, measuring criteria associated with terminal effects of the project, and a comparison basis for outcome interpretation.

(3) Collect the necessary data. The review of the literature identified the follow-up study as a valuable technique for educational program evaluation. The follow-up can be utilized as shown in Figure 2, page 35, to assess program input, process, and output, utilizing evaluation responses from the client population and employers of clients to reflect the effectiveness of the Program. The primary objective of this study is to measure the effectiveness of the Program in increasing the professional competence of its graduates. The Program Design aids in identification of Program procedures and techniques used to develop professional competence. Program evaluation data for this study will be collected via the follow-up of former program students and their employers to meet the above objective.

(4) An analysis will be made of Program performance based upon the expected or designed program. A comparison of client performance with expected client outcome will be made. The criteria for judging performance will be the program design. From this analysis, conclusions and recommendations for program evaluation and improvement will be drawn.

FIGURE 2. THE FOLLOW-UP STUDY

A METHOD OF PROGRAM EVALUATION IT'S RELATIONSHIP TO THE EDUCATIONAL PROGRAM



The remaining secondary objective, that of constructing a follow-up system suitable for an educational institution to serve as an ongoing monitoring system of program evaluation, will form the final component of this section and will be synthesized from the applicable section of the review of literature. The follow-up system design was piloted in the Graduate College, University of Wisconsin-Stout, utilizing nine graduate program follow-up studies including the study developed and detailed herein. The pilot was coordinated by the Director of the Graduate Program in Vocational Education and the author of this study.

SELECTION OF THE POPULATION

The population selected for this study included the total number of graduates from the University of Wisconsin-Stout who received the Master of Science Degree in Vocational Education during the years 1968, 1969, 1970, 1971, and 1974, and the graduates who received the Education Specialist Degree in Industrial and Vocational Education during the years 1970, 1971, 1972, 1973 and 1974.

The graduates of these specific years were selected for several reasons. (1) M.S. graduates surveyed by Hunt included those receiving degrees from 1962 through 1967 (Hunt, p. 4). For this reason, and the fact that the Program as it exists today could not realistically be evaluated from input of graduates prior to 1967, 1968 was determined the initial follow-up year. (2) It is hoped that a yearly follow-up of Program graduates, with a repeat inquiry in three years will be conducted as suggested by the Review of Literature; therefore, not wishing to weary graduates with repeated surveys, graduates of 1972 and 1973 were omitted from this study in anticipation of their being contacted by follow-up

in the next two years. (3) A variant decision on Ed.S. population selection was used. Because of the small number of graduates (thirty-two) receiving the Education Specialist Degree since the inception of the Program in 1970, it was determined most feasible to contact all Ed.S. graduates of 1970 through 1974 by follow-up this year, with a repeat inquiry in three years.

The M.S. and Ed.S. population used in this study can provide baseline data for comparison in continuing follow-up studies conducted within the Program.

Students were graduated from the program prior to 1973 in the months of January, May and August. In 1973 and 1974, graduates received their degrees in the months of May, August and December. The decision was made to include the December graduates in the survey populations of the calendar years 1973 and 1974 based on three factors: (1) all years included in the present follow-up would then be treated equally on a calendar-year basis; (2) future follow-up populations will be clearly delineated as belonging to the calendar year in which they did in fact graduate, thus preventing their being inadvertantly overlooked in future follow-up; and (3) these recent December graduates while exhibiting little experience on the job would, however, provide current evaluation of the Program.

A list of those students graduated during the years of 1968 through 1974 was obtained from the Graduate College. Those who received the M.S. Degree in 1972 and 1973 were removed from the mailing list but were kept in the master mailing list for future survey contact. It was found that a total of two hundred four M.S. graduates and thirty-two Ed.S. graduates received their degrees during the period of time covered in this study.

The Follow-up Census Decision Making Matrix designed and utilized for this study to determine accessibility of graduates may be found in Appendix A.

The decision to include the total number of graduates as explained in the preceding paragraph in the population rather than a sample was based upon four factors: (1) the total number of graduates was not too large to contact feasibly, (2) the expense and time required for the study would not increase significantly, (3) the accuracy of the data would increase by using all of the graduates instead of a sample of those who graduated, and (4) it was deemed highly important that personal contact be made between the college and each one of its graduates.

Addresses of the survey population were obtained from the Graduate College records, the alumni file, and the Career Planning and Placement Office.

A typed list including the name and address of each graduate along with coded digits and symbols representing the year graduated and Program was taken to the Computer Center at University of Wisconsin-Stout where five pressure sensitized mailing labels for each name were printed by computer. The name and addresses were first key punched on continuous form cards. The cards were fed into the computer which generated the five sets of labels. This provided a quick, accurate and inexpensive method of developing mailing labels which would be used on the survey instrument and envelope (two labels), for the follow-up inquiry (two labels), and for a master mailing record (one label). The master mailing list containing up-to-date addresses was utilized for future correspondence.

DATA COLLECTION PROCEDURES

The master mailing list revealed that some of the subjects resided outside the state of Wisconsin; therefore, the decision was made to use the mailed follow-up questionnaire as the means through which a widely dispersed population could be reached. Other factors considered before deciding to use the mailed questionnaire were: (1) this type of instrument could be designed to evaluate the various Program areas explicated in the Program Design; (2) subjects could respond at their convenience; (3) item responses could be coded, computerized and/or tabulated easily; (4) the cost was within Program means.

A letter of transmittal accompanied the questionnaire along with a return-addressed, stamped envelope which was included for ease of response. A copy of the cover letter and questionnaire may be found in Appendix B.

The first follow-up of non-responders was conducted eighteen days following the initial mailing and included a follow-up letter, a copy of the survey instrument, and a stamped, return-addressed envelope. A second follow-up of non-responders was conducted thirty-two days after initial mailing and consisted of a letter and a prepared return envelope. Each letter was personalized with the subject's name and was personally signed by the letter writer. Copies of the two follow-up letters can be found in Appendix C.

The procedure for collecting data from employers of graduates was very carefully thought out as it was deemed important to foster an open and positive relationship between UW-Stout, the graduates, and the employers of graduates. In order to accomplish this goal the following

procedure was developed and utilized:

(1) The employer questionnaire was attached to the follow-up instrument sent to graduates in order that the graduate might see exactly what the evaluation included.

(2) A letter of explanation was incorporated in the graduate survey to inform the graduate of the purpose of the employer survey.

(3) The graduate was afforded the opportunity of giving his/her permission for the survey to be sent on to his/her employer by electing or rejecting to sign and return the employer section with the main survey. In no case was an employer survey sent out without permission of the graduate.

(4) Upon receipt of the signed employer surveys an employer survey mailing list was constructed. From this list a survey mailing was conducted to employers of graduates. This mailing took place fifty-three days after initial mailing. A copy of the employer survey can be found with the main survey in Appendix B.

(5) A follow-up of employer non-responders was conducted twenty-three days after the mailing of the employer survey and included a follow-up letter and stamped, self-addressed envelope. A copy of the employer follow-up letter can be found in Appendix D.

INSTRUMENTATION

Information Desired

The questionnaire used in this study was developed and designed by the researcher to serve two purposes: (1) to serve as the evaluation vehicle for a variety of graduate programs as well as (2) to provide evaluation data specifically designed to measure the effectiveness of the Program from the viewpoint of graduates and employers of graduates.

In order to accomplish these goals the instrument was divided into five sections. These sections were: I. Generalizable Program Data - designed to be used by all graduate college programs; II. Specific Program Data - designed to be used by the M.S. and Ed.S. Vocational Education Program; III. Suggestions and comments toward Program Improvement; IV. Permission for Employer Evaluation; V. Employer Survey. A concentrated effort was made in all sections to develop a valid, reliable instrument exhibiting good face validity as synthesized from the review of literature.

Selected Personal Data

A limited and selected amount of personal data was solicited in the survey prior to Section I. in order to minimize the amount of personal responses required of the subject. A personalized technique was implemented by including the subject's name and address on the survey form. Each subject was asked to correct the name and/or address if incorrect. These corrections were then subsequently made on the master mailing list to serve as a nucleus of the address list for the future three-year follow-up.

Each subject was asked to give the name and address of his employer along with his job title. Space was provided for the respondent to list any degrees earned since receiving the Graduate Degree at Stout. Space was also provided for the number of semester hours of post-graduate degree work completed. The subject was asked if he intended to enroll in advanced graduate work in the future, and, if so, what program he was intending to enroll in. The respondent was then asked to indicate how the first position directly following completion of the graduate program was obtained; and also, if the graduate was aware of the services of the

Career Planning and Placement Center and/or presently wanted placement information.

Although the items in this portion preceding Section I. were open form in nature, an attempt was made to construct the items in a manner which would allow facilitation of computer tabulation and analysis of the resulting data. Response to this preliminary portion to Section I. would provide data for Input Evaluation of Program Design.

Section I. Generic Data

This section of the instrument was developed for utilization by all graduate programs in the follow-up system pilot and is therefore generic in nature. While there is some overlapping in other Program Design areas, it was designed mainly to provide generalized data for the identified components of the Educational Program (conversion statement) in Program Design, mainly: advisement, program planning, course work, instruction, evaluation and placement.

The items in this section required a judgmental rating of personal graduate program experiences and reactions. Through the first item the attempt was made to ascertain the degree of influence of the graduate program on seven situations: immediate salary upon graduation, present salary, salary potential, job satisfaction, job advancement, job opportunities in present area, and job opportunities in new areas.

In the second item the graduate was asked to react to positive statements centered on the selected program components of program advisement, research advisement, elective and required coursework, overall instruction, and admission requirements. Any graduate reacting negatively was asked to explain the reaction in open form question in Section III.

The third item was designed to determine the degree the graduate program experience influenced personal development in the following general competencies: oral communication, written communication, problem solving, ability to organize, ability to analyze, research, leadership and decision-making. An item identical to this one was included in the employer section of the survey so that a comparison of the graduate's rating of his competency level and the employer's rating of the graduate's competency level in each of the above categories could be compared.

In the last item of this section the graduate was asked to rate the degree of usefulness of any of eight possible experiences which he/she personally encountered in his/her graduate program: Research Foundations class, Plan A Thesis, Plan B, Internship, Practicum, Teaching Experience, Assistantship, and Synergistic Experience. The graduate was also asked whether he/she would recommend that the experience rated be kept in, dropped from, or replaced within the Program.

Section II. Specific Program Evaluation Data

This section of the questionnaire was developed to collect data pertinent specifically to the goals of the Programs under study. The graduate programs in Vocational Education were designed to increase the professional competence of those they serve. Therefore, in this section, the graduates were asked to determine the level of competence they felt they had attained in selected Program areas as a result of their graduate program participation. The sources used to determine and develop the selected competencies rated were the Program Director's List of Tasks

and Competencies for the Vocational Educator[26] and the Graduate Bulletin.[27]

The Program Director's list of competencies had been developed, based upon task analysis, to evaluate specifically the courses in the Program, each competency relating directly to one or more identified course in the Program. Courses developed after the completion of the competency list were identified in the Graduate Bulletin and competencies were developed relating directly toward each new course. This method of evaluation of competencies, rather than of courses and instruction was selected and judged the best means of evaluating the main goal of the Program: that of increasing the professional competence of Program graduates. A copy of the Program Director's competency list can be found in Appendix E.

The rating scale which follows was used by respondents to rate the thirty-one selected Program competencies:

> As a result of my graduate studies, I feel that I developed competence in performing each of the selected related tasks shown below to the following degree:
> 1. I have not encountered the task.
> 2. I was incapable of performing the task.
> 3. I felt uneasy in performing the task.
> 4. I was capable of performing the task.
> 5. I felt a good deal of confidence in performing the task.
> 6. I felt highly confident in performing the task.

The thirty-one competency items that were included in the final instrument are contained in Appendix B.

---

[26]University of Wisconsin-Stout Graduate College, "Leadership Development, U.W.-Stout" (Unpublished, 1974).

[27]University of Wisconsin-Stout, "Graduate College Catalog of Courses," The Graduate Bulletin, 60 (1975-1977), pp. 42-44, 48-58.

Section III. Suggestions for Program Improvement

An opportunity was provided in this section of the instrument for the subject to make suggestions in open-ended format for the improvement of the Program.

In the first item the graduates were limited and directed to give a brief explanation for any expressed negative reaction to the various program components rated in Section I., item 10, reaction to selected graduate program components. It was felt that the reason behind a respondent's negative reaction could be utilized in program evaluation and improvement.

The subjects were directed in the second item to limit their response to subjects or areas of study they felt would be of value in a graduate Vocational Education Program. These could be courses already included in the Program which they felt deserved special emphasis; however, new ideas and/or areas that have been neglected in the present Program were sought.

In the last item in Section III. space was provided for the respondents to make any additional comments they felt appropriate which could help improve the Program.

The three sections described above formed the main portion of the graduate questionnaire. This portion was reproduced in light yellow at the Duplicating Center, U.W.-Stout.

Supervisor/Employer Questionnaire

Letter to graduates. The last page of the yellow questionnaire was written in letter format and served as an introduction for the graduates to the employer survey and also provided the means through which their

permission was either given or not given for the questionnaire to be sent on to the employer. In the case that a graduate did not give permission for employer evaluation, a space was provided for the reason for such a decision.

Letter to Supervisor/Employer. The first page of the green employer questionnaire contained a letter which acquainted the employer with the purpose of the evaluation, the plan for utilization of the results, and the procedure to use in completing the survey.

Employer Evaluation of Graduates. The first four items requested that the employer rate the graduate's educational preparation. The first item called for a yes or no answer as to whether the graduate had, in the employer's opinion, received adequate educational preparation to perform the job for which employed. The employer was then asked to respond in open-ended formt to two items identifying areas in which the graduate was exhibiting above-average job preparation skills and those areas in which the graduate should have received more or better educational preparation. The employer was then asked to rate the degree of preparatory skill exhibited by the graduate in nine selected general competencies. These same competencies (with one exception) were also rated by the graduates so a comparison could be made. The last and fifth item on the page asked the employers to project into the future and suggest ideas of subjects or areas of study important for future graduates.

Employer evaluation of selected program study areas. The final item was designed to be completed by employers in the field of education only and asked for opinions as to the degree of importance attached to various

selected study areas in an educational program. There followed twenty-nine study areas which had been synthesized from the list of thirty-one competencies which the graduates had rated. The employers were asked to rate each one on a one- to five-point scale ranging from unncessary (1), through desirable (3), to essential (5).

FOLLOW-UP SYSTEM

The final section of this chapter contains a model and the design for a Follow-Up System suitable for an educational institution. The development of both the model and the system design is basically a synthesis of the research detailed in the review of the literature. Secondly, the model and the system design both reflect revisions deemed advisable as a result of the implementation of the proposed system in the Graduate College, University of Wisconsin-Stout, during the current academic year (1974-1975).

The Follow-Up System Design Model, shown on page 49 and developed for this study, outlines the major components of the follow-up system and graphically illustrates the activity flow. The model can be used as a visual guide or reference for the System Design.

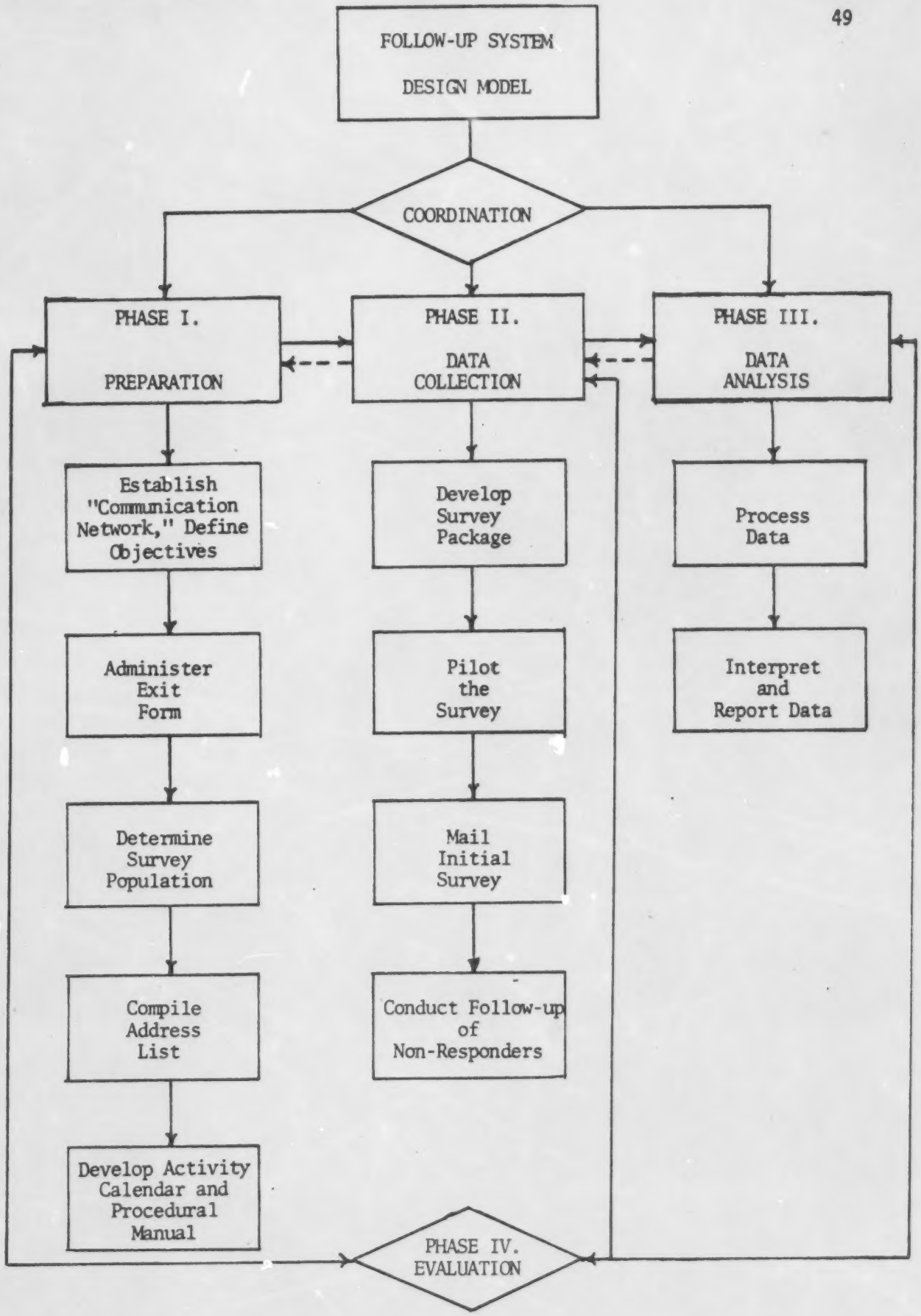
The Follow-Up System Design developed for this study is portrayed and detailed (beginning on page 50) in "Information Mapping Format."[28] It contains components identified as essential to a workable and valid Follow-Up System. The major four phases of I. Preparation, II. Data Collection, III. Data Analysis, and IV. Evaluation are detailed and

---

[28]Robert E. Horn, "Information Mapping," Training in Business and Industry (March, 1974), pp. 27-32.

sequenced showing general procedures and activity steps. This system then can be tailored to an individual educational institution following the prescriptions outlined in the System Design.

While this system was further tailored to the Graduate College, University of Wisconsin-Stout, the procedural manual thus developed is not included as a part of this study. However, the Activity Schedule called for by the Systems Design follows on page 58 as this is generic in nature and can be utilized by other educational institutions. Note that the Activity Schedule graphically depicts the Follow-Up Activity Schedule itself separately from, but coordinated with, the Management Activity.


FOLLOW-UP SYSTEM
DESIGN MODEL
COORDINATION
PHASE I.
PREPARATION
PHASE II.
DATA
COLLECTION
PHASE III.
DATA
ANALYSIS
Establish "Communication Network," Define Objectives
Administer Exit Form
Determine Survey Population
Compile Address List
Develop Activity Calendar and Procedural Manual
Develop Survey Package
Pilot the Survey
Mail Initial Survey
Conduct Follow-up of Non-Responders
Process Data
Interpret and Report Data
PHASE IV.
EVALUATION

FOLLOW-UP SYSTEM DESIGN

PHASE I. PREPARATION

Designate a Follow-up Coordinator Assigned the Responsibility For:	• Coordinating and conducting the evaluation. • Establishing a well-developed "communication network" involving all significant and contributing groups and people. • Defining critera in coordination with all contributing groups explicating objectives of the survey. Criteria and objectives will give substance to data collection procedures and will serve as judging standards in Phase IV. Evaluation.
Develop and Administer a "Required" Exit Form To Be Completed By Graduates Just Prior to Graduation. Include:	• Student orientation and an appeal for cooperation in the forthcoming follow-up study. • Request a follow-up address at which or through which the graduate can be reached for initial follow-up.
Determine the Survey Population:	• Define the graduate year, e.g., calendar, fiscal, academic. • Determine the years to include in the study. Estimate both current and continuing study populations.
Compile Names and Addresses. The Address List Will Serve Two Purposes:	• Compilation of current addresses for the survey sample. • Formation of a master mailing list which can be kept current through future follow-up contact.

Continued on next page.

PHASE I. PREPARATION, *continued*

Develop Activity Calendar Outlining Objectives:	• Schedule each of the follow-up procedural phases in calendar or pert form.* • Detail graphically the activity plan in each of the procedural phases.* • Detail graphically the system management flow.* • Develop periodic check forms to assure schedule is being maintained.
Begin Compilation Of Activity Procedural Manual To Include:	• Detailing each step in the procedural activity chart. • Copies of all check forms and correspondence on follow-up activity and progress.

*See Activity Schedule on p. 58.

FOLLOW-UP SYSTEM DESIGN

PHASE II. DATA COLLECTION

Develop a Survey Package Including:

- Cover letter, personally signed by someone with whom the respondent can easily identify. Include the purpose of the survey, a motivation to respond, and a message of thanks.

- Survey instrument reproduced on colored paper (yellow, pink, or other light color) including a stamped, self-addressed envelope.

  Good face validity is essential in the mechanical representation.

  Frame the instrument in such a manner that answers are called for which will measure attainment of the objectives.

  Check instrument with computer technician who will be processing data to assure processability of data.

  Obtain demographic data from school files rather than to add to survey length.

  Generally speaking, avoid open-ended questions.

  Personalize the form by including respondent's name.

  Content - the variety of topics included - must be as limited as possible.

- Systematic follow-up of Non-Responders (one or more) sent to non-responders at approximately 16 days following the original mailing and 7 to 14 days following the first follow-up letter.

  After a period of waiting, every second person from among those non-responding to the one or two follow-up letters can be called by telephone.

Continued on next page.

PHASE II: DATA COLLECTION, *continued*

	Close tabs on the identify or each person must be kept either by placing an identifying number or the respondent's name on the form.
Pilot the Survey, Then:	• Collate and evaluate piloting response. • Revise survey package and reproduce required number.
Mail Initial Study, Be Certain to:	• Time the mailing to avoid "stress" times. • Time the mailing to arrive on Monday or Tuesday.
Conduct Follow-Up of Non-Responders. Try to:	• Keep to schedule outlined previously. • Time the mailing to arrive on or just prior to the weekend.

FOLLOW-UP SYSTEM DESIGN

PHASE III. DATA ANALYSIS

Process Data:

- Check precoding of returned questionnaires and correct any inconsistencies shown by response.
- Edit all questionnaires as they are received.

  Make any name/address change on Master Mailing List.

  Clarify any vague or misleading responses making corrections in red ink and being careful not to erase any original entry.
- Code each item not precoded in the left hand margin of the questionnaire for machine processing on tab cards. This form will constitute the Master Keypunch Format. Use a bold colored marker (e.g., blue).

  Assign card columns for serial identification, assign a card column for card number if more than 80 columns are required.

  Code open-ended items after reading all responses and listing them, setting up meaningful answer categories, and assigning numbers to the categories. This will allow for computer processing of open-ended responses and will minimize tedious hand processing.

  A coding manual may be constructed including all coding decisions and instructions as well as the key punching format.

  Determine which demographic or other data will be used for computer summaries so that interesting comparisons and relationships can be identified.

Continued on next page.

PHASE III: DATA ANALYSIS, *continued*

- Construct the tab card. This is done in conjunction with the previous coding step.

  Confer with the computer operator to establish compatability between the computer's programming capabilities and the key punching format.

  Confer with the key punch operator to facilitate clear understanding of the key punching format.

- Machine tabulate data according to format.

  Re-establish with computer operator the type of program to be used: e.g., Frequency Distribution, Weighted Score Analysis, etc.

  Run summaries by significant demographic items as planned for in coding format.

Interpret Data:

- A thorough understanding of the computer printout is essential to good data reporting.

  Confer with computer technician or other statistician to insure correct interpretation of printout data.

  Write in the heading for each summary and column of figures on the printout immediately or the figures may become meaningless.

- Translate data on to table shells prepared on two levels:

  (1) The "working" tables should contain large quantities of information providing comprehensive coverage of the subject matter.

  (2) The "publication" tables will include salient and selected data derived from the working tables and arranged to focus attention on important comparisons and relationships. It is the publication tables that are included in the body or text of most reports.

Continued on next page.

PHASE III: DATA ANALYSIS, *continued*

Report Data:

- Once the results are summarized, they should be reported in a simple and meaningful manner.

  The character of the audience for which the report is intended should determine the report format.

  Present results in non-technical language which everyone in the intended audience can understand.

- There are several different techniques or formats for presenting survey results.

  (1) Written reports, general or detailed, following a formal or informal research report guide, often times using publication tables.

  (2) Graphic reports, including charts, graphs, transparencies, slides.

  (3) A combination of (1) and (2).

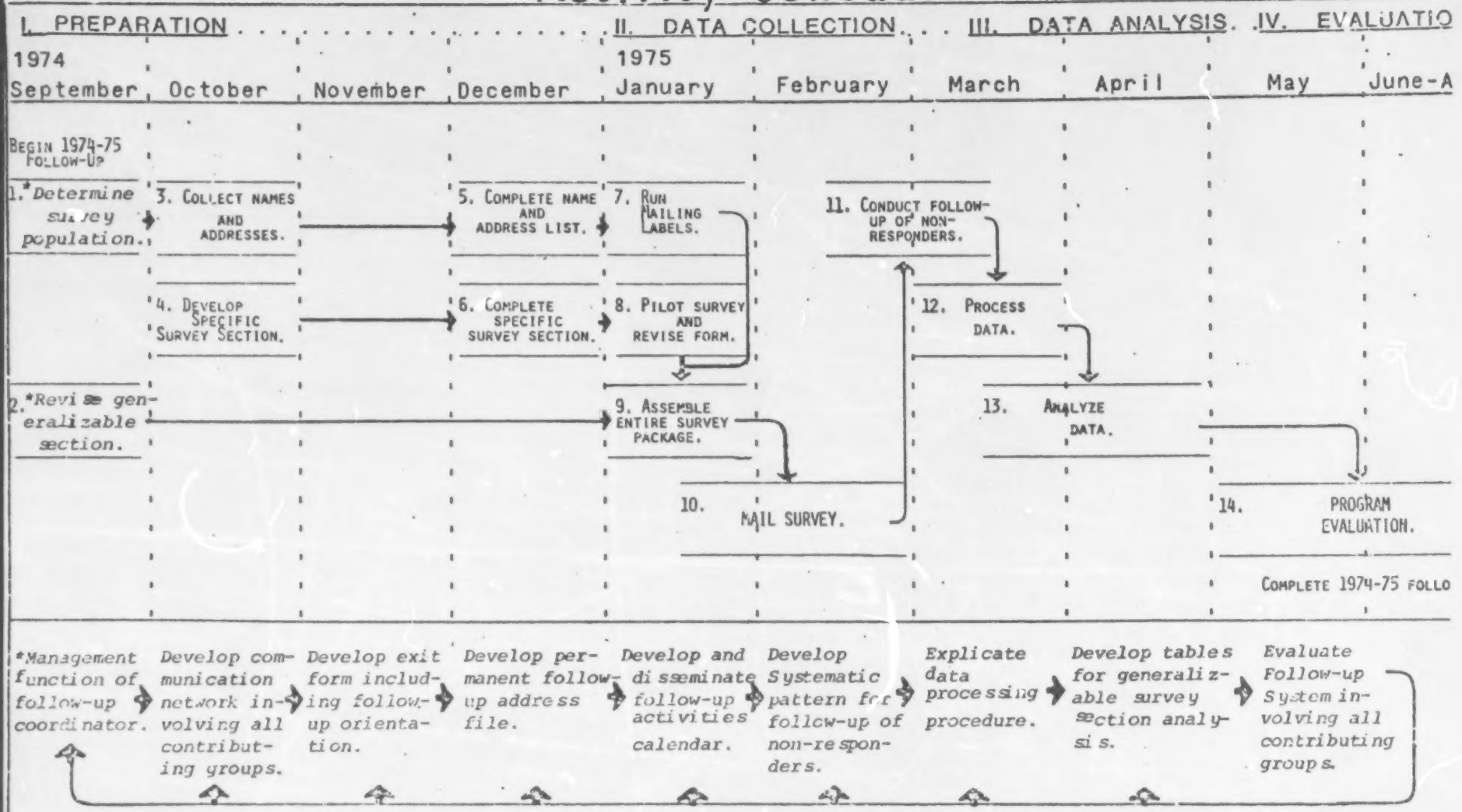
  (4) Verbal reports sometimes complemented with visuals, hand-out materials and supplementary reports.

FOLLOW-UP SYSTEM DESIGN

PHASE IV. EVALUATION

Evaluation of the Follow-Up System Will Include:	• Involving all significant and contributing groups and people. • Establishing whether each objective detailed in the three procedural phases was met and to what degree. • Establishing where management function of the follow-up coordinator did or did not facilitate reaching survey objectives. • Alteration of objectives, activity schedule, and/or management function upon evaluation results for next follow-up year.
Evaluation of the Program Will Require the Researcher To:	• Present full report including data results, conclusions, and recommendations to program administration. It is essential the report be valid in terms of the goals of the Program showing criterion levels of performance related to objectives. • Act as resource person for administrative program evaluation decision-making.

GRADUATE FOLLOW-UP SYSTEM DEVELOPMENT
Activity Schedule



CHAPTER SUMMARY

Program evaluation methodology developed for this study was synthesized from analysis and comparison of models and strategies of noteworthy evaluation research educators. Evaluation synthesis recommendations for the primary objective of this study were: (1) Involve all aspects of the Program in evaluation; (2) Explicate all components of the Program; (3) Collect the necessary data through utilization of the mailed follow-up survey contacting Program graduates of selected years and the employers of these graduates; (4) Analyze Program performance and client performance from which conclusions and recommendations for program evaluation and improvement can be drawn.

The survey population selected for this study included the total number of graduates from the University of Wisconsin-Stout who received the Master of Science Degree in Vocational Education during the years 1968, 1969, 1970, 1971, and 1974. Names and addresses of the survey population were obtained from the Graduate College records, the Alumni files, and the Career Planning and Placement Office.

The instrument used for this study was designed to provide the following information: (1) generic evaluative data suitable for a variety of graduate programs; (2) specific Program evaluation data and suggestions for Program improvement from Program graduates; (3) specific Program evaluation data and suggestions for Program improvement from the employers of Program graduates. A pilot study was conducted prior to mailing to evaluate the instrument. A follow-up of non-responders was designed and conducted to improve the response rate.

A Follow-Up System model and procedural design were developed and detailed to satisfy the secondary objective of this study. Both the

model and the system design reflect revision deemed advisable as a result of the implementation of the system in the Graduate College, University of Wisconsin-Stout, 1974-75 academic year. The Follow-Up System Design developed for this study is portrayed and detailed in Information Mapping format explicating the four procedural phases of I. Preparation, II. Data Collection, III. Data Analysis, and IV. Evaluation.

Chapter 4

RESULTS OF THE STUDY

The primary objective of this study was to measure the effectiveness of the Program in increasing the professional competence of Program graduates. The means of measurement selected was a follow-up study developed and designed to evaluate all components of the Program Design Model; Input, Conversion Process, and Output. This chapter contains results of data collected by follow-up from M.S. graduates of 1968, 1969, 1970, 1971, and 1974; Ed.S. graduates of 1970, 1971, 1972, 1973, and 1974; and from the employers of these graduates.

The information presented in this chapter is introduced in sections relating to the survey instrument used for this study. The first section, designed mainly to gather data for Input evaluation, deals with selected personal data including educational and occupational information about the respondents. The next section contains attitudinal evaluatory items pertaining to selected components of the graduate program. This section of the survey was designed mainly to provide data for Conversion Process evaluation. Specific Program evaluation data is the substance of the following section assessing the graduates' attained level of competence in selected Program areas. Data gathered from this section would provide input for the Conversion Process and Output evaluation of Program Design. Suggestions for Program improvement follow with open-ended responses,

suggestions, and comments. The final section presents data resulting from employer evaluation of the graduates' vocational preparation. This section was designed mainly to provide data for Output evaluation of Program Design and for judging client performance.

The personalized cover letter and accompanying questionnaire developed for this study were sent to 222 graduates on February 15, 1975. By March 4, 45.3 percent of the questionnaires had been completed by the respondents and returned. Ten questionnaires were also returned, apparently because the graduates had moved without leaving a forwarding address with the postmaster. After repeated attempts, correct addresses could not be found for these ten graduates. On March 5, a follow-up letter including a duplicate copy of the questionnaire was sent to all non-respondents. This follow-up procedure elicited completed questionnaires from an additional 26.4 percent of the survey population bringing the total responses to 71.7 percent by March 19. At this time the second follow-up letter was sent to each non-respondent which resulted in an additional 14.6 percent return. By April 12, which was designed as the cut-off date for computer processing, fifty-six days after the original mailing, 86.3 percent of the survey population had replied. Six more completed returns from M.S. graduates were received too late to process which brought the total response rate to 89.2 percent. A graph charting the questionnaire return rate can be found in Appendix F.

The survey instrument and cover letters had been personalized because research indicated that personalization of the questionnaire would result in a good return rate. It is also felt that personalization contributed at least in part to the number of personal notes, paragraphs,

and letters to the Program Director that were returned with the questionnaire either written on the form itself or on separate paper. Seventeen such personal written responses were received by the Program Director.

An analysis of the returned questionnaires by years is presented in Table 1 for M.S. graduates and in Table 2 for Ed.S. graduates. As shown in these tables 88.9 percent of the M.S. graduates and 90.6 percent of the Ed.S. graduates completed and returned the survey instrument. A total of 189 graduates, or 89.2 percent of the survey population, completed and returned the questionnaire.

Data elicited from the respondents through the survey instrument were key punched on computer tab cards and processed at the Computer Center, University of Wisconsin-Stout. The Weighted Score Analysis Program was used which generated mean and standard deviation, median and interquartile range, number and percentage for each item.

It will be seen that percentages in these and the following tables will not in each case total exactly 100 percent. This is due in part to the rounding off of each percentage figure to one decimal point and also to the fact that some respondents at times omitted items and these omits were given percentage values. It will also be noted that while twenty-nine Ed.S. graduates returned questionnaires, a total of twenty-eight Ed.S. graduate responses appear in the tables. This was due to a key punch error which miscoded one Ed.S. graduate into the M.S. graduate category.

SELECTED PERSONAL DATA

A limited amount of demographic data was elicited in the survey instrument. Research indicated that the response rate could be improved

TABLE 1

NUMBER AND PERCENT OF QUESTIONNAIRES RETURNED BY M.S. GRADUATES IN VOCATIONAL EDUCATION

Year	Total Graduates	Total Surveys Mailed	Total Returned Non-Deliverable	Total Returned Completed*	Percentage Returned**
1968	42	40	1	34	87.2
1969	23	21	3	17	94.4
1970	29	28	3	23	92.0
1971	60	56	2	49	90.7
1974	50	45	1	37	84.1
Total	204	190	10	160	88.9

*Figure includes those completed returns that were received too late to process (6).

**Percentage is calculated on the number of questionnaires mailed minus those returned non-deliverable.

TABLE 2

NUMBER AND PERCENT OF QUESTIONNAIRES RETURNED BY ED.S. GRADUATES IN VOCATIONAL AND INDUSTRIAL EDUCATION

Year	Total Graduates	Total Surveys Mailed	Total Returned Non-Deliverable	Total Returned Completed	Percentage Returned*
1970	2	2	0	1	50.0
1971	7	7	0	7	100.0
1972	10	10	0	10	100.0
1973	5	5	0	4	80.0
1974	8	8	0	7	87.5
Total	32	32	0	29	90.6

*Percentage is calculated on the number of questionnaires mailed minus those returned non-deliverable.

by minimizing the number of personal responses required of the respondents.

Each respondent was asked to enter his/her employment status, present employer, and job title. Tables 3 and 4 show the employment status of the M.S. and Ed.S. graduates respectively. It was found that one M.S. graduate of 1969 was unemployed while all others had obtained employment. Over 92 percent of the M.S. graduates were employed in educational institutions, while 6.4 percent were employed in business or industry and one was in government service. All twenty-eight Ed.S. graduates were employed; twenty-six in education, two in business or industry.

An analysis of the jobs presently being performed by graduates was made to determine the relatedness of their job to their graduate program. Table 5 shows that over 92 percent of the M.S. graduates were employed in jobs directly related to their educational program, 0.6 percent had jobs that are somewhat related and 5.8 percent were working in positions that bear no relationship to their graduate program. A direct relationship between job and training was found in 89.2 percent of the Ed.S. graduates with 10.6 percent showing some relationship. None of the Ed.S. graduates were found to be employed in jobs bearing no relationship between job and graduate training. The degree of relatedness in all cases was determined with the Program Director as resource person. A full accounting of the decision-making process used in this study to determine the degree of relatedness of respondents' occupations to their graduate program can be found in Appendix G.

Table 6 shows that 25 percent of the M.S. respondents did not go on for further educational work beyond the Master of Science Degree while over 44 percent have completed one or more semester hours. One 1969

TABLE 3

EMPLOYMENT STATUS OF M.S. GRADUATES IN VOCATIONAL EDUCATION EMPLOYED IN EDUCATIONAL AND NON-EDUCATIONAL POSITIONS

N=155

Year	Educational Institution		Business or Industry		Government		Unemployed		Other	
	N	%	N	%	N	%	N	%	N	%
1968	30	93.7	2	6.2	-	-	-	-	-	-
1969	14	87.5	1	6.2	-	-	1	6.2	-	-
1970	20	86.9	3	13.0	-	-	-	-	-	-
1971	46	93.8	3	6.1	-	-	-	-	-	-
1974	33	94.2	1	2.8	1	2.8	-	-	-	-
Total	143	92.2	10	6.4	1	0.6	1	0.6	-	-

TABLE 4

EMPLOYMENT STATUS OF ED.S. GRADUATES IN VOCATIONAL AND INDUSTRIAL EDUCATION EMPLOYED IN EDUCATIONAL AND NON-EDUCATIONAL POSITIONS

N=28

Year	Educational Institution		Business or Industry		Government		Unemployed		Other	
	N	%	N	%	N	%	N	%	N	%
1970	1	100.0	-	-	-	-	-	-	-	-
1971	5	83.3	1	16.0	-	-	-	-	-	-
1972	9	90.0	1	10.0	-	-	-	-	-	-
1973	4	100.0	-	-	-	-	-	-	-	-
1974	7	100.0	-	-	-	-	-	-	-	-
Total	26	92.8	2	7.0	-	-	-	-	-	-

TABLE 5

RELATEDNESS OF EDUCATIONAL PROGRAM
TO PRESENT JOB FOR EMPLOYED GRADUATES

Graduates	TOTAL EMPLOYED	RELATEDNESS OF JOB TO TRAINING					
		Direct		Some		None	
	N	N	%	N	%	N	%
M.S. N=155	154	143	92.2	1	0.6	9	5.8
Ed.S. N=28	28	25	89.2	3	10.6	-	-
Total N=183	182	168	91.8	4	2.1	9	4.9

TABLE 6

M.S. AND ED.S. GRADUATES COMPLETING ADDITIONAL
EDUCATIONAL WORK

N=183

Graduates		Hours of Additional Degree Work Completed										Degrees Earned	
	Omits	0		1 to 6		7 to 12		13 to 18		19 Plus		Ed.S.	Ed.D. or Ph.D.
Year	N	N	%	N	%	N	%	N	%	N	%	N	N
M.S.	45	39	25.1	33	21.2	16	10.3	6	3.8	15	9.6	3	1
Ed.S.	11	10	35.7	1	3.5	2	7.1	2	7.1	2	7.1	X	0
Total	56	49	26.7	34	18.5	18	9.8	8	4.3	17	9.2	3	1

graduate received the Doctor of Philosophy Degree from the University of Minnesota and one 1970 graduate along with two 1971 graduates received the Education Specialist Degree. Over 35 percent of the Ed.S. respondents did not go on for further educational work while 24.8 percent have

completed one or more semester hours. None of the Ed.S. respondents had received a doctoral degree. The large number of omits noted for this item would seem to indicate that the question was difficult to interpret or that some of the graduates receiving the survey felt it did not pertain to them.

Graduates were asked to show their intentions for further study by indicating whether they had no intention of enrolling in an advanced graduate program, were undecided whether to enroll, or that they did intend to enroll. Those that intended to enroll were asked to list the program they felt they were going to enroll in. Table 7 shows that 27 percent of M.S. respondents had no intention of enrolling in an advanced program, 38.7 percent were undecided and 26.4 percent did intend to enroll. These percentages compared to the Ed.S. graduate responses of 21.4 percent, 32.1 percent, and 46.4 percent respectively indicate that a smaller percentage of Ed.S. respondents have either no intention or are undecided whether to continue in an educational program than M.S. respondents. The comparison also shows that almost half (46.4 percent) of the Ed.S. respondents intend to enroll for further study while slightly more than a quarter (26.4 percent) of the M.S. respondents are so inclined. Fifty-two respondents indicated the program in which they intended to enroll. Eighteen respondents indicated they either had enrolled in or would be enrolling in the Education Specialist Degree Program. Seventeen respondents designated the Ph.D. or Ed.D. programs as their choice for enrollment. Six were undecided as to what program they would be enrolling in, four wanted to go for further study in the field of Educational Administration, four in Vocational Education, one in Criminal Justice, one in Career Education, and one in Guidance.

TABLE 7

INTENTIONS OF M.S. AND ED.S. GRADUATES
IN VOCATIONAL EDUCATION FOR FURTHER POST GRADUATE DEGREE WORK

Graduates	No Intention		Undecided		Intend to Enroll*	
	N	%	N	%	N	%
M.S. N=155	42	27.0	60	38.7	41	26.4
Ed.S. N=28	6	21.4	9	32.1	13	46.4

*Programs designated for further study were: Education Specialist (18), Ph.D. or Ed.D. (17), Undecided (6), Administration (4), Vocational Education (4), Criminal Justice (1), Career Education (1), Guidance (1).

M.S. and Ed.S. respondents were asked to indicate the manner in which they obtained their first position directly following completion of their graduate program. Table 8 displays data gathered from M.S. and Ed.S. graduates which shows that the majority of respondents in both Programs returned to their prior jobs. Personal contact and the Stout Career Planning and Placement Center were the next most used means of obtaining initial employment for M.S. respondents, each accounting for placing 10.9 percent. Other placement means than those specified in the survey were responsible for job placement of 9 percent of M.S. respondents, an advertisement or job description was responsible for an additional 5.8 percent placement, and a Stout faculty member was responsible for the remaining 3.2 percent M.S. placement. A Stout faculty member figured in the placement of three Ed.S. respondents while the Placement Center was responsible for placing two Ed.S. graduates. A personal contact and an advertisement or job description each accounted for one Ed.S. placement. Because the category entitled "other" figured in the placement of 9 percent and 14.2 percent of M.S. and Ed.S. respondents respectively, an analysis was made of the written responses.

TABLE 8

PLACEMENT INFORMATION ON THE FIRST POSITION OBTAINED DIRECTLY FOLLOWING GRADUATION FOR M.S. AND ED.S. GRADUATES IN VOCATIONAL EDUCATION

First position placement was obtained through:	M.S. Graduates N	M.S. Graduates %	Ed.S. Graduates N	Ed.S. Graduates %
(1) A personal contact.	17	10.9	1	3.5
(2) A Stout faculty member.	5	3.2	3	10.7
(3) The Stout Career Planning and Placement Center.	17	10.9	2	7.1
(4) An advertisement or job description.	9	5.8	1	3.5
(5) Returned to prior job.	92	59.3	16	57.1
(6) Other.*	14	9.0	4	14.2

*Other placement means noted by respondents were: already had job pending completion of Program (7), asked to apply through previous professional contact (6), and advancement in current school or system (5).

It was found that seven respondents already had their initial job pending completion of the Program, six respondents capitalized on a previous professional contact by being contacted and requested to apply for their current position, and five respondents advanced within their current school or system.

The last item in this section of the survey was designed to assess the respondent's knowledge of the Stout Career Planning and Placement Service and also to ascertain if placement information was desired by graduates at this stage of their career development. Of the 177 graduates who responded, 26 or 15 percent stated they were unaware of the services of the Stout Career Planning and Placement Center, 118 or 67 percent responded that they were aware of the service, and 33 or 18 percent of the respondents requested that information be sent to them. A typed list of names and

addresses of those respondents who wanted placement information was forwarded to the Career Planning and Placement Center for reply.

SECTION I. GENERIC DATA

In this section graduates were asked to give a judgmental rating reacting to four areas of graduate program influence and experience.

Item 9. Program Influence on Seven Selected Job Situations

The first of the four items in this section was designed to measure the degree of influence the graduate program experience had on seven selected job situations. The situations selected were: immediate salary upon graduation, present salary, salary potential, job satisfaction, job advancement, job opportunities in present area, and job opportunities in new areas. Graduates were asked to circle the numerical response which reflected the personal rating judged appropriate for each of the seven item components. The responses used for this item and their numerical point value ratings were:

(Circle one)

Degree of Influence				
None				Strong
1	2	3	4	5

Subject responses are presented in Table 9 showing the median value rating of each item component for M.S. graduates and for Ed.S. graduates.

The median is that mid-point in rank order of distribution above which and below which fifty percent of the ratings fall. The interquartile statistic (IQR) was also used here as well as in the remaining tables. This statistic was used to depict the level of agreement that respondents

TABLE 9

DEGREE OF INFLUENCE OF THE GRADUATE PROGRAM IN VOCATIONAL EDUCATION ON SEVEN SELECTED JOB SITUATIONS FOR M.S. AND ED.S. GRADUATES

	Job Situations	M.S. Graduates		Ed.S. Graduates	
		Median	IQR	Median	IQR
(1)	Immediate salary upon graduation.	3.9	2.2	2.5	3.2
(2)	Present salary.	3.9	1.9	3.6	3.3
(3)	Salary potential.	4.2	1.7	3.9	1.9
(4)	Job satisfaction.	3.5	1.7	4.4	1.5
(5)	Job advancement	3.6	1.9	3.5	3.3
(6)	Job opportunities in present area.	3.6	2.3	3.6	1.7
(7)	Job opportunities in new areas.	3.6	1.7	3.9	1.7

exhibited in value ratings. The IQR encompasses the middle fifty percent of the ratings given. The median is located within this range. The following range for each interval of the interquartile statistic was used as adapted from Jessen.[29]

IQR Value	Level of Agreement
0.5 to 1.6	High level of agreement
1.7 to 2.8	Moderate level of agreement
2.9 to 4.0	Low level of agreement

As can be seen by viewing Table 9 as a whole, M.S. graduates

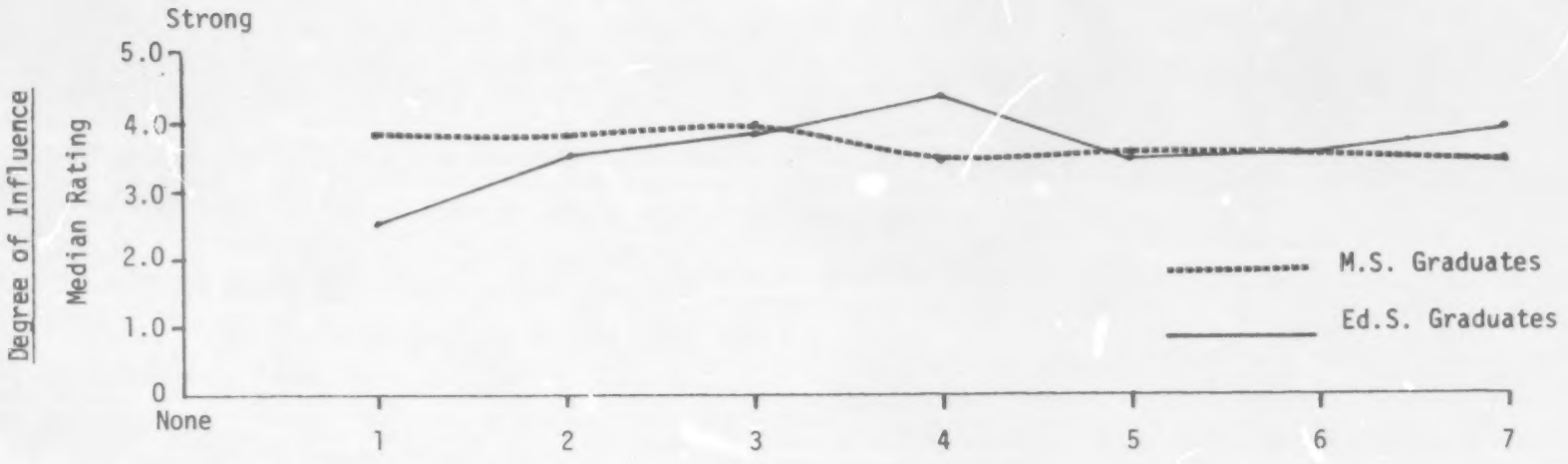
[29]Steve D. Jessen, "A Task Analysis of Vocational-Technical School Counselors in the State of Wisconsin" (unpublished Master's Thesis Stout State University [University of Wisconsin-Stout], Menomonie, Wisconsin, 1971), p. 22.

exhibited a moderate level of agreement in assigning median ratings that fell between 3.5 and 4.2, showing moderate to strong Program influence on all job situations. Ed.S. graduates, however, varied from a high to a low level of agreement in assigning median ratings that fell between 2.5 and 4.4 on the degree of influence scale. It was found that both groups tended to agree in the rating of two of the seven job situations: job advancement was given a 3.6 and 3.5 median rating respectively by M.S. and Ed.S. graduates while job opportunities in present area was given a 3.6 median rating by both groups. M.S. respondents gave salary potential the highest median rating of 4.2, followed by immediate salary upon graduation and present salary, both with a 3.9 median rating. Job opportunities in new areas was given a 3.6 median rating and job satisfaction was assigned the lowest median rating given by M.S. graduates of 3.5. In direct contrast, Ed.S. graduates with high agreement gave job satisfaction the strongest median rating of 4.4. Job opportunities in new areas and salary potential were each given a 3.9 median rating, job opportunities in present area and present salary each received a 3.6 median rating followed by job advancement with 3.5, and immediate salary upon graduation received the lowest median rating of 2.5.

In summary, data generated by this item indicate that M.S. graduates felt Program influence was strongest on salary - immediate, present, and potential; while Ed.S. respondents felt Program influence was strongest on job satisfaction, closely followed by job opportunities in new areas and salary potential. It appears that both groups have indicated that a variety of satisfactions have come from the Program. Figure 5 was designed to give a quick visual reference of median ratings by the two groups.

FIGURE 5 (Relates to Table 9)

A COMPARISON OF M.S. and ED.S. GRADUATES' RATINGS OF THE DEGREE OF INFLUENCE OF THE GRADUATE PROGRAM IN VOCATIONAL EDUCATION ON SEVEN SELECTED JOB SITUATIONS.



Job Situation Number *

*(1) Immediate salary upon graduation.

(2) Present salary.

(3) Salary potential.

(4) Job satisfaction.

(5) Job advancement.

(6) Job opportunities in present area.

(7) Job opportunities in new areas.

Item 10. Reaction to Selected Graduate Program Components

Graduates were asked to indicate their reaction to eight selected Program components by circling the response which reflected the attitude held toward each individual item statement. The responses used for this item and their numerical point value ratings were:

Strongly Disagree . . . . . 1 point
Disagree . . . . . 2 points
Undecided . . . . . 3 points
Agree . . . . . 4 points
Strongly Agree . . . . . 5 points

The eight program component statements can be seen in Table 10 along with median ratings and IQR for M.S. graduates and for Ed.S. graduates. A view of the table as a whole shows that both groups are in high agreement in rating each item statement. The M.S. graduates median ratings ranged from 3.8 to 4.5, Ed.S. graduates median ratings ranged from 4.3 to 4.9, both groups ratings falling in the upper third of the five-point agreement rating scale showing agreement to strong agreement on item statements. Highest M.S. median ratings went to the availability of program advisement, soundness of program advisement, and helpfulness of research advisement. M.S. graduates agreed that graduate college admission requirements were realistic, that their program allowed adequate selection of electives, and that overall course instruction was professionally presented. The effectiveness of overall course instruction was given a 3.9 median rating by M.S. graduates, appropriateness of required coursework to their program was given a 3.8 median rating. Ed.S. graduates generally agreed with M.S. graduates rank order of agreement on each item statement; however, Ed.S. respondents ratings were consistently in stronger agreement with item statements. Ed.S. respondents strongly agreed with the three advisement

TABLE 10

REACTION OF M.S. AND ED.S. GRADUATES IN VOCATIONAL EDUCATION TO EIGHT SELECTED GRADUATE SCHOOL PROGRAM COMPONENTS

Graduate School Program Components	M.S. Graduates		Ed.S. Graduates	
	Median	IQR	Median	IQR
(1) I was able to get program advisement when I needed it.	4.5	1.1	4.9	0.6
(2) My program advisement was sound.	4.4	1.1	4.9	0.6
(3) My research advisement was helpful.	4.2	1.1	4.9	0.6
(4) My program allowed adequate selection of electives.	4.0	1.3	4.8	0.9
(5) Required coursework was realistic and appropriate to my program.	3.8	1.4	4.3	1.1
(6) Overall course instruction was professionally presented.	4.0	0.8	4.6	1.1
(7) Overall course instruction was effective.	3.9	0.8	4.5	1.0
(8) Graduate College admission requirements were realistic.	4.1	0.8	4.8	0.9

component statements giving them a 4.9 median rating. Their strength of agreement was also very high in rating the adequacy of program elective selection and the reality of graduate college admission requirements, assigning each of these item statements a 4.8 median rating. Ed.S. graduates also agreed that overall course instruction was professionally presented and effective, and that required coursework was realistic and appropriate to their program.

In summary, data generated by this item indicate that both M.S. and Ed.S. graduates were in a high level of agreement in rating each item statement and that both groups showed agreement to strong agreement on item statements with the Ed.S. graduates ratings consistently higher than M.S. respondents ratings. There was agreement to strong agreement that respondents in both groups felt they received sound program advisement when they needed it and that their research advisement was helpful. They agreed that Graduate College admission requirements were realistic, selection of Program electives was adequate, and that course instruction was professionally presented and effective. There was a difference of opinion between M.S. and Ed.S. graduates on the appropriateness of required coursework to their program with Ed.S. graduates agreeing and M.S. graduates tending to agree with the item statement. Figure 6 was designed to give a visual picture and group comparison of responses to this item.

Item 11. Program Influence on Personal Competency Development

Respondents were asked to indicate to what degree their graduate program experience influenced personal development in the following eight selected general competencies: oral communication, written communication, problem solving, ability to organize, ability to analyze, research, leadership, and decision-making. They were asked to circle their response on the following numerical rating scale:

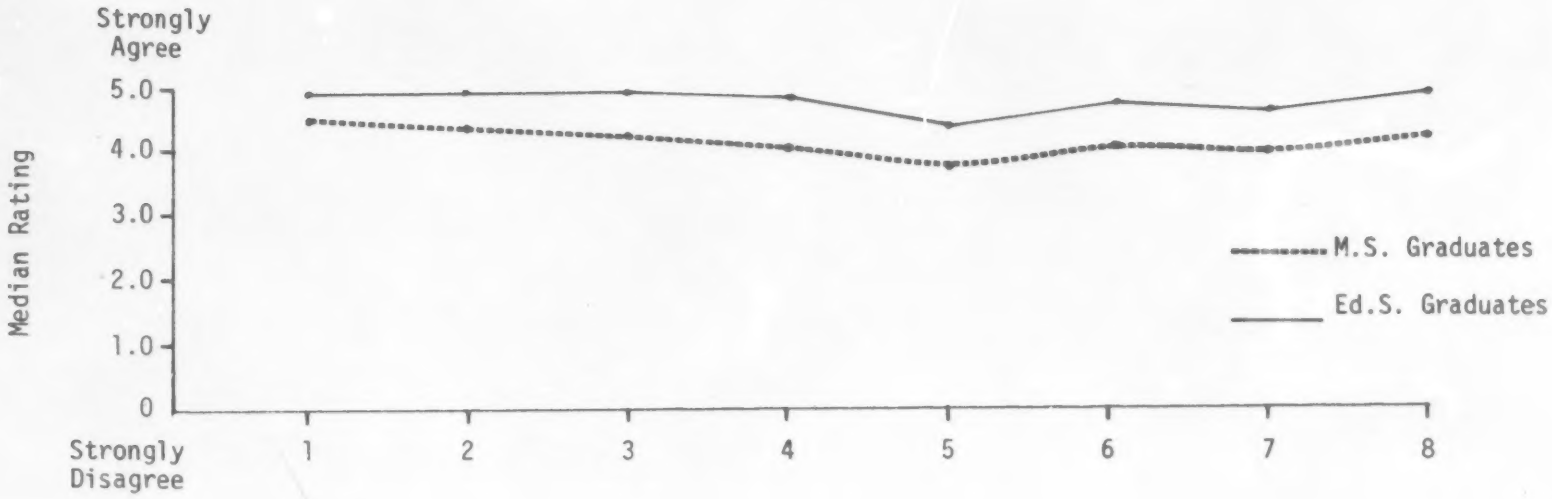
(Circle One)

Degree of Influence				
None				Strong
1	2	3	4	5

The subject responses are presented in Table 11 showing the median value rating for each competency for the M.S. graduates and for the Ed.S. gradu-

FIGURE 6 (Relates to Table 10)

A COMPARISON OF M.S. and ED.S. GRADUATES'
REACTION TO EIGHT SELECTED GRADUATE SCHOOL PROGRAM COMPONENTS.



*(1) I was able to get program advisement when I needed it.

(2) My program advisement was sound.

(3) My research advisement was helpful.

(4) My program allowed adequate selection of electives.

(5) Required coursework was realistic and appropriate to my program.

(6) Overall course instruction was professionally presented.

(7) Overall course instruction was effective.

(8) Graduate College admission requirements were realistic.

TABLE 11

GRADUATES' RATINGS OF THE DEGREE THAT THEIR GRADUATE PROGRAM INFLUENCED PERSONAL DEVELOPMENT IN EIGHT SELECTED GENERAL COMPETENCIES

Competencies	M.S. Graduates		Ed.S. Graduates	
	Median	IQR	Median	IQR
(1) Oral communication.	3.2	1.2	3.4	2.1
(2) Written communication.	3.6	1.4	3.9	1.1
(3) Problem solving.	3.7	1.2	4.3	1.1
(4) Ability to organize.	3.8	1.4	4.2	1.0
(5) Ability to analyze.	3.8	1.3	4.5	1.0
(6) Research.	3.9	1.2	4.4	1.1
(7) Leadership.	3.4	1.2	3.7	1.4
(8) Decision-making.	3.6	1.3	4.1	1.0

ates as well as the IQR statistic.

A view of Table 11 as a whole shows that in all but one item statement both groups are in a high level of agreement in assigning median ratings in the moderate to moderately strong range from 3.2 to 3.9 for M.S. respondents and from 3.4 to 4.5 for Ed.S. respondents. M.S. graduates gave competence in research the strongest median rating of 3.9, the ability to organize 3.8, and the ability to analyze, 3.8. Problem solving was rated 3.7 and written communication and decision-making both received 3.6. M.S. graduates assigned program influence on the development of leadership 3.4 and competence in oral communication the lowest median rating of 3.2. Ed.S. respondents exhibited a fairly similar rank order assigning the strongest

median rating of 4.5 to the ability to analyze, research a 4.4, problem solving with 4.3, ability to organize 4.2, and decision-making 4.1. Program influence on written communication and leadership were assigned median ratings of 3.9 and 3.7 respectively, and oral communication received the lowest median rating of 3.4.

On each item statement Ed.S. graduates ratings were higher than M.S. graduates ratings indicating that Ed.S. graduates felt their Program more strongly influenced personal development in each of the eight general competencies selected. Figure 7 gives a quick visual comparison of the median ratings of both groups.

Item 12. Usefulness of Eight Selected Graduate Program Experiences

Graduates were asked to rate the degree of usefulness of the following graduate experiences: Research Foundations Class, Plan A Thesis, Plan B, Internship, Practicum, Teaching Experience, Assistantship, and Synergistic Experience. They were asked first to check those experiences that did not apply to them, then to rate only those experiences that they encountered by checking their response on the following rating scale:

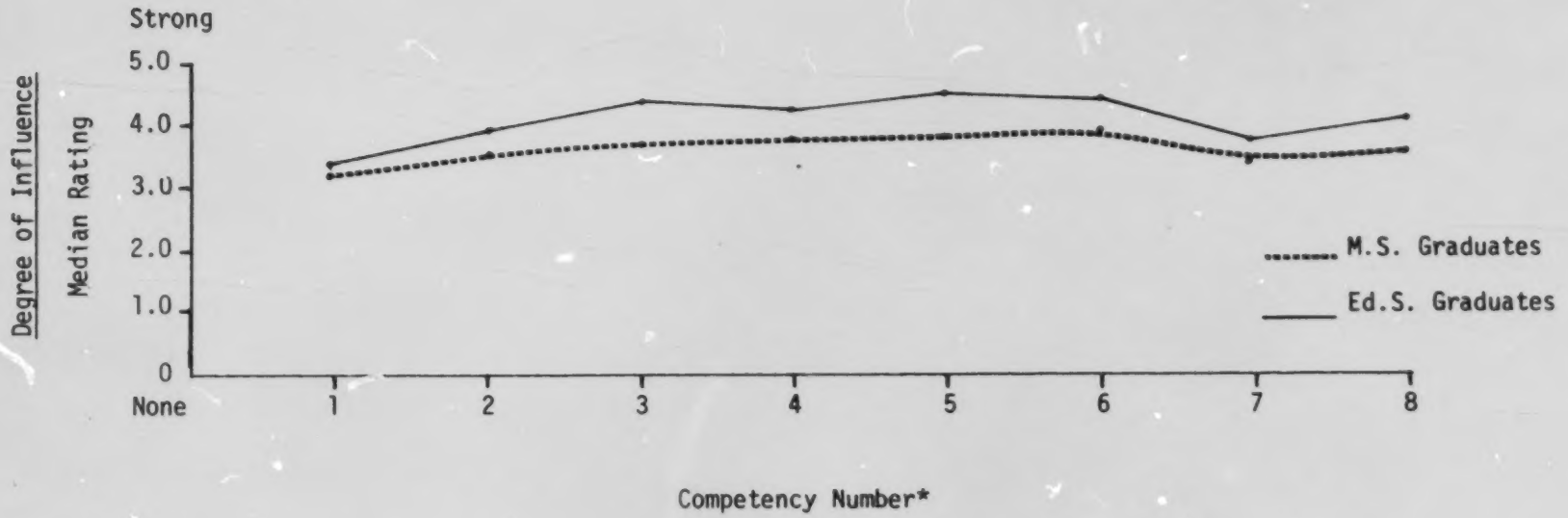
Degree of Usefulness

None	Low	Moderate	High
(1)	(2)	(3)	(4)

Responses are presented in Table 12 showing the median value rating for each experience for the M.S. graduates and for the Ed.S. graduates as well as the IQR statistic. A view of Table 12 as a whole shows that both M.S. and Ed.S. groups were in a high level of agreement in assigning median ratings in the moderate to high degree of usefulness range of 3.0 to 3.9 for M.S. respondents and 3.6 to 4.0 for Ed.S. respondents. M.S.

FIGURE 7 (Relates to Table 11)

A COMPARISON OF M.S. and ED.S. GRADUATES' RATINGS OF THE DEGREE
THAT THEIR GRADUATE PROGRAM INFLUENCED PERSONAL DEVELOPMENT IN EIGHT GENERAL COMPETENCIES.



*(1) Oral communication.

(2) Written communication.

(3) Problem solving.

(4) Ability to organize.

(5) Ability to analyze.

(6) Research.

(7) Leadership.

(8) Decision-making.

TABLE 12

GRADUATES' RATINGS OF THE DEGREE OF USEFULNESS OF EIGHT POSSIBLE GRADUATE SCHOOL EXPERIENCES

	Experience	M.S. Graduates			Ed.S. Graduates		
		N*	Median	IQR	N*	Median	IQR
(1)	Research Foundations Class.	113	3.0	1.1	17	3.7	1.0
(2)	Plan A Thesis.	15	3.6	1.1	6	3.9	0.6
(3)	Plan B.	133	3.0	0.9	15	3.6	1.1
(4)	Internship.	9	3.9	0.6	2	4.0	0.5
(5)	Practicum.	13	3.3	1.1	5	3.9	0.6
(6)	Teaching Experience.	48	3.9	0.6	7	4.0	0.5
(7)	Assistantship.	18	3.9	0.6	8	3.9	0.6
(8)	Synergistic Experience.	18	3.3	1.4	4	3.8	0.7

*This number (N) and the following ratings represent those graduates who encountered the experience listed.

graduates gave the Research Foundations class and the Plan B the lowest rating of 3.0 or a moderate level of usefulness. These two experiences were encountered by the largest number of M.S. respondents, 113 and 133 respectively. Practicum and synergistic experience both received a slightly higher rating of 3.3 by thirteen and eighteen graduates respectively. Neither of these experiences is a planned component of the graduate program in Vocational Education indicating that this small number of respondents either encountered the experience in another program or that they made an error on the questionnaire form. The Plan A thesis was rated by fifteen M.S. graduates as having a 3.6 median rating indicating a moderate to

high degree of usefulness. The internship, teaching experience, and assistantship were all given a 3.9 median rating indicating a high degree of usefulness by nine, forty-eight, and eighteen M.S. graduates respectively. Ed.S. respondents rated all experiences in the moderate to high degree of usefulness range, with the Plan B receiving a 3.6 median rating and Research Foundations class receiving a 3.7 median rating by the largest number of Ed.S. respondents, seventeen and fifteen respectively. The synergistic experience received a 3.8 median rating by four Ed.S. graduates, while the assistantship, practicum, and Plan A Thesis all received a 3.9 median rating by eight, five, and six Ed.S. respondents respectively. Both the internship and teaching experience received a top median rating of 4.0 or high degree of usefulness by two and seven Ed.S. graduates respectively.

In summary, Table 12 shows that both groups in a high level of agreement assigned a moderate to high degree of usefulness to all experiences with the Research Foundations class and Plan B receiving the lowest ratings of the eight experiences while the internship, teaching experience and assistantship experience received the highest ratings. Ed.S. graduates gave a higher degree of usefulness rating to all but one experience than the M.S. graduates. Figure 8 was designed to give a quick visual reference to Table 12 data.

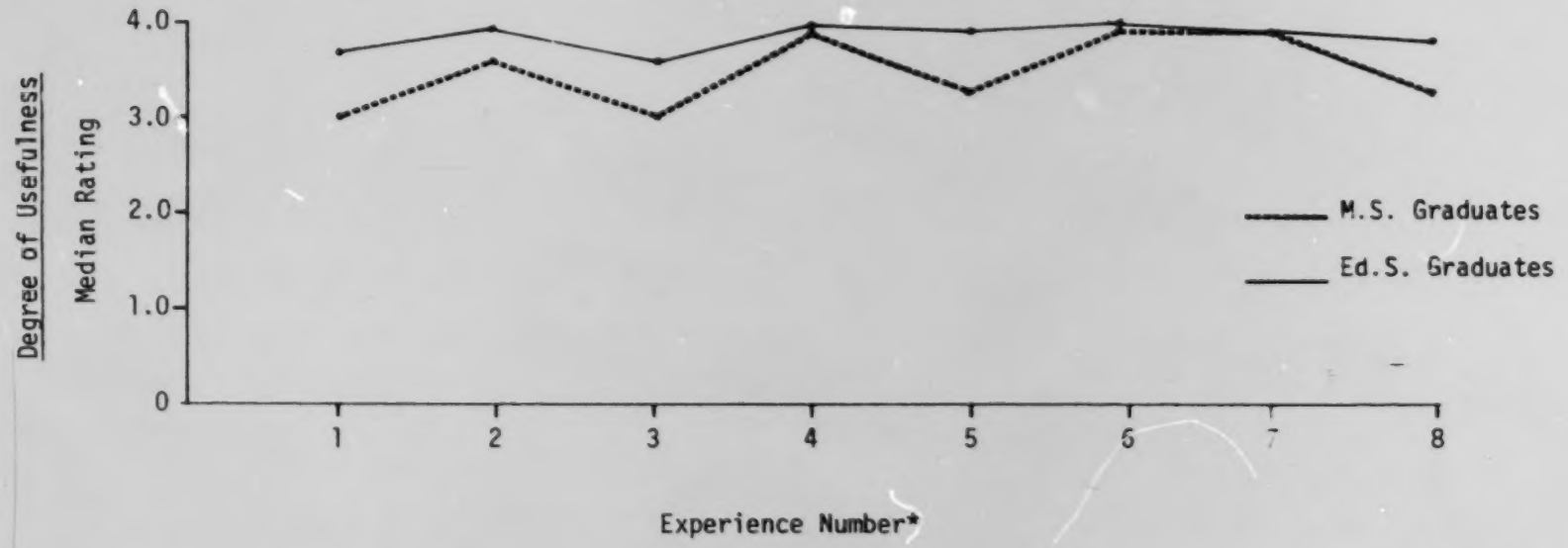
As a final response to this item, graduates were asked to recommend whether they felt the experience they encountered and rated should be kept, dropped or replaced within the Program. The following rating scale was used for this portion of item 12:

Recommendation			
Keep (1)	Drop (2)	Replace (3)	(with)

FIGURE 8 (Relates to Table 12)

A COMPARISON OF M.S. and ED.S. GRADUATES' RATINGS
OF THE DEGREE OF USEFULNESS OF EIGHT POSSIBLE GRADUATE SCHOOL EXPERIENCES.

Note: The following ratings represent those graduates who encountered the experience listed.



*(1) Research Foundations Class.
(2) Plan A Thesis.
(3) Plan B.
(4) Internship.
(5) Practicum.
(6) Teaching Experience.
(7) Assistantship.
(8) Synergistic Experience.

Table 13 depicts number and percent responses from M.S. graduates while Table 14 shows responses from Ed.S. graduates. Over 66 percent of the twenty-one M.S. graduates who rated the Plan A Thesis felt it should

TABLE 13

M.S. GRADUATES' RECOMMENDATIONS FOR KEEPING, DROPPING OR REPLACING EIGHT POSSIBLE GRADUATE SCHOOL PROGRAM EXPERIENCES

(Correlates with Table 12)

Experience	N*	Recommendations: Keep N	Keep %	Drop N	Drop %	Replace With: N	Replace With: %	Replace With:
(1) Research Foundations Class	101	84	83.2	15	14.9	2	2.0	Statistics, Elective in Major.
(2) Plan A Thesis	21	14	66.7	6	28.6	1	4.8	Independent Study.
(3) Plan B	129	95	73.6	29	22.5	5	3.9	Internship (2), Field Experience, Group Research Project, Research Foundations Requirement.
(4) Internship	13	13	100.0	-	-	-	-	
(5) Practicum	16	15	93.6	1	6.3	-	-	
(6) Teaching Experience	43	41	95.3	-	-	2	4.7	Internship.
(7) Assistantship	20	19	95.0	-	-	1	5.0	
(8) Synergistic Experience	15	15	100.0	-	-	-	-	

*This number (N) and the figures following represent those graduates who encountered the experience.

be kept in the Program, 28.6 percent recommended it should be dropped, and 4.8 percent felt it should be replaced with independent study. Over 73

percent of the 129 M.S. respondents recommended the Plan B be kept, 22.5 percent felt it should be dropped, and 3.9 percent felt it should be replaced with an internship, field experience, group research project, or that it should be considered a Research Foundations class requirement. Over 83 percent of the 101 M.S. respondents recommended that Research Foundations class be kept, 14.9 percent felt it should be dropped, and 2 percent indicated it should be replaced with a course in statistics or an elective in the major area of study. Over 93 percent of the sixteen M.S. respondents recommended that the Practicum experience be kept, 6.3 percent felt it should be dropped, none indicated it should be replaced. Ninety-five percent of the twenty M.S. graduates responding felt the assistantship experience should be kept, none recommended that it be dropped, and 5.0 percent felt it should be replaced without indicating the substitution. Over 95 percent of the forty-three M.S. respondents recommended that the teaching experience be kept, none recommended that it be dropped, 4.7 percent recommended that it be replaced with an internship. The internship experience was rated by thirteen M.S. graduates, the synergistic experience was rated by fifteen M.S. graduates, and in each case 100 percent of the respondents recommended the experience be kept in the Program. Ed.S. graduates exhibited a similar rating pattern as can be seen in Table 14; however, only three of the experiences were given a drop or replace recommendation. Six of the seven Ed.S. respondents recommended keeping the Plan A Thesis in the Program, none recommended that it be dropped, and one indicated that it should be replaced with a field methodology alternative. Ten of the eleven Ed.S. respondents recommended that the Plan B be kept, one recommended that it be dropped. Fourteen of the fifteen Ed.S. respondents recommended that the Research Foundations class be kept, none felt it should be dropped, one recommended

TABLE 14

ED.S. GRADUATES' RECOMMENDATIONS FOR KEEPING, DROPPING OR REPLACING EIGHT POSSIBLE GRADUATE SCHOOL PROGRAM EXPERIENCES

(Correlates with Table 12)

Experience	N*	Recommendations					
		Keep		Drop		Replace With:	
		N	%	N	%	N	%
(1) Research Foundations Class	15	14	93.3	-	-	1	6.7 Elective in Major.
(2) Plan A Thesis	7	6	85.7	-	-	1	14.2 Field methodology alternative.
(3) Plan B	11	10	90.9	1	9.1	-	-
(4) Internship	2	2	100.0	-	-	-	-
(5) Practicum	3	3	100.0	-	-	-	-
(6) Teaching Experience	6	6	100.0	-	-	-	-
(7) Assistantship	7	7	100.0	-	-	-	-
(8) Synergistic Experience	4	4	100.0	-	-	-	-

*This number (N) and the figures following represent those graduates who encountered the experience.

it be replaced with an elective in the major field of study.

In summary, the experiences which received the strongest recommendations for being kept in the Program by both groups were the internship, practicum, teaching experience, assistantship, and the synergistic experience. The Research Foundations Class, Plan B, and Plan A received weaker recommendations from both groups; however, these three experiences did receive support from 66 to 93 percent of the respondents.

SECTION VI. SPECIFIC PROGRAM EVALUATION

Section II. of the survey was designed specifically to evaluate the level of professional competency attained by M.S. and Ed.S. graduates as a direct result of Program participation. The graduates were asked to rate the degree of competency they attained in thirty-one selected specific competencies which had previously been identified through task analysis as central to Vocational Education: e.g., the researcher, teacher, coordinating teacher, coordinator, supervisor, local vocational education coordinator, or administrator of vocational education. The responses used for this item and their numerical point value ratings were:

I have not encountered the task . . . . . 1 point
I was incapable of performing the task . . . . . 2 points
I felt uneasy in performing the task . . . . . 3 points
I was capable of performing the task . . . . . 4 points
I felt a good deal of confidence in performing the task . . 5 points
I felt highly confident in performing the task . . . . . 6 points

Graduates were asked to indicate their perception of the degree of competence they attained in each of the selected tasks as a direct result of their graduate studies by circling the appropriate numerical response.

The range for each interval of the interquartile statistic (IQR) was modified for the six-point rating scale as follows:

IQR Value	Level of Agreement
0.5 to 1.9	High level of agreement
2.0 to 3.4	Moderate level of agreement
3.5 to 5.0	Low level of agreement

In order to display response results for this item with clarity and meaningfulness, the following procedure was followed: (1) competencies were first arranged in rank order of median values; (2) three groupings of competencies were made clustering those with low (0.5 to 2.5) median values, those with mid (2.6 to 4.5) median values, and those with high (4.6 to 6.5)

median values; (3) tables were developed displaying results utilizing the three median clusters for both M.S. and Ed.S. respondents. Tables 15a, 15b, and 15c summarize responses from M.S. graduates and Tables 16a, 16b, and 16c summarize responses from Ed.S. graduates.

These six tables display the competency, the median value rating and IQR for each competency, as well as the number and percent of respondents not encountering each task. Explication of number and percent data of graduates not encountering each task was deemed important for three reasons: (1) those competencies which large numbers of respondents had not encountered could subsequently be classified for review as low priority instructional objectives, (2) numbers in this category would tend to lower the median value of the remaining five criterion value ratings, and (3) numbers in this category would tend to significantly raise the IQR statistic.

TABLES 15a, 15b, and 15c

M.S. GRADUATES' RATINGS OF THE DEGREE OF COMPETENCE ATTAINED IN THIRTY-ONE SELECTED PROFESSIONAL COMPETENCIES AS A DIRECT RESULT OF GRADUATE PROGRAM PARTICIPATION

Table 15a ranks those competencies receiving a median value of 0.5 to 2.5.

Key: 0.5 to 1.5 = I have not encountered the task.
1.6 to 2.5 = I was incapable of performing the task.

N=155

Competency	Graduate Rating		Graduates Not Encountering the Task	
	Median	IQR	N	%
28. Planning to extend the opportunities and benefits of distributive education to as many students as possible.	1.3	3.0	95	61.2
25. Establishing a student occupational organization.	1.4	3.2	82	52.9
29. Providing superiors with specialized distributive education information relating to project proposals and long-range plans.	1.4	3.0	89	57.4
43. Utilizing computer systems with application to research projects, statistical or developmental.	2.0	3.0	70	45.1

TOTAL = 4 competencies ranked in the 0.5 to 2.5 Median Value Cluster.

Table 15a shows that M.S. graduates rated four competencies in the low median value cluster, three of which fell in the "not encountered" range and one which fell in the "incapable of performance" range.

The IQR statistic reveals that there was a moderate level of agreement among respondents in rating these tasks. It can be noted that over 50 percent of the M.S. respondents had not encountered competencies 28., 25., and 29., while 45 percent had not encountered competency 43.

Table 15b ranks those competencies receiving a median value of 2.6 to 4.5.

Key: 2.6 to 3.5 = I felt uneasy in performing the task.
3.6 to 4.5 = I was capable of performing the task.

N=155

	Competency	Graduate Rating		Graduates Not Encountering the Task	
		Median	IQR	N	%
23.	Developing instructional units to use in working with unique groups such as the disadvantaged and handicapped.	2.8	3.2	64	41.2
26.	Advising a student occupational organization.	2.8	3.6	72	46.4
21.	Preparing a project proposal for funding career and vocational education programs based on state and federal guidelines.	3.4	3.8	64	41.2
19.	Establishing a plan, in cooperation with the counseling and guidance dept., that will assure all students opportunity to consider and review their career decisions.	3.5	3.3	64	41.2
18.	Devising a plan of public relations that will relate the career education program to the community.	3.6	3.6	62	40.0
17.	Planning with school personnel to establish career and vocational programs avoiding duplication of effort within the system and area.	3.7	3.7	59	38.0

Table 15b (continued)

	Competency	Graduate Rating		Graduates Not Encountering the Task	
		Median	IQR	N	%
24.	Designing an administrative plan and procedures for a program, school, or department.	3.7	3.8	65	41.9
13.	Coordinating the gathering, selecting & analyzing of data with respect to jobs available to graduates of an educational institution.	3.9	3.7	53	34.1
38.	Understanding the legal responsibilities of various school officials.	4.0	2.0	24	15.4
34.	Teaching a lesson at the synthesis level.	4.1	2.1	34	21.9
16.	Establishing a program to involve on-the-job experiences as part of the career and occupational education program.	4.1	4.0	50	32.2
20.	Developing a plan to assist students in locating & securing jobs.	4.1	3.8	47	30.3
22.	Planning and maintaining procedures to evaluate instruction for relevance and effectiveness.	4.2	2.3	32	20.6
36.	Understanding the management techniques including program planning budgeting systems.	4.2	2.0	24	15.4
37.	Understanding negotiations as related to education.	4.2	2.2	25	16.1
39.	Understanding the state laws and state agencies as they relate to the school and vocational education.	4.2	1.5	15	9.6

Table 15b (continued)

	Competency	Graduate Rating		Graduates Not Encountering the Task	
		Median	IQR	N	%
32.	Understand, critically evaluate and utilize research performed by others.	4.3	1.5	9	5.8
42.	Planning, conducting and reporting surveys.	4.3	2.0	31	20.0
33.	Researcning, collecting and utilizing objectives and tangible data as an approach to solving problems.	4.4	1.5	15	9.6
41.	Articulating the vocational program with post-high school, apprenticeship committees, business community, general education.	4.4	1.6	20	12.9
	TOTAL = 20 competencies ranked in the 2.6 to 4.5 Median Value Cluster.				

Table 15b reveals that M.S. respondents rated twenty competencies in the mid median value cluster, four of which fell in the "uneasy in performing" range and sixteen of which fell in the "capable of performing" range. IQR statistic shows mainly a moderate to low level of agreement between graduates rating these tasks. It should be noted that the IQR statistic is low for item numbers which carry a low percentage of graduates not encountering the task, indicating that the number of responses in this category does significantly affect the IQR statistic. It can be seen that between 38 and 46 percent of the respondents

had not encountered the first seven ranked tasks while those not encountering the remaining thirteen ranged from 34.1 percent to 5.8 percent.

Table 15c ranks those competencies receiving a median value of 4.6 to 6.5.

Key: 4.6 to 5.5 = I felt a good deal of confidence in performing the task.
5.6 to 6.5 = I felt highly confident in performing the task.

N=155

	Competency	Graduate Rating		Graduates Not Encountering the Task	
		Median	IQR	N	%
15.	Developing a plan to set up and work with steering and advisory committees.	4.6	2.3	30	19.3
27.	Developing and maintaining effective interpersonal relations, group and individual.	4.8	1.3	11	7.0
40.	Utilize and evaluate a variety of media for instructional improvement and maximal student learning.	4.8	1.4	7	4.5
30.	Developing and relating a personal philosophy of education to the contemporary classroom.	4.9	1.8	14	9.0
31.	Applying appropriate learning theories and principles in educational practice.	4.9	1.4	4	2.5
14.	Developing or revising a curriculum to meet needs that have been identified.	5.0	1.5	11	7.0
35.	Understanding the history, issues, principles, and philosophy of vocational education.	5.0	1.5	6	3.8

TOTAL = 7 competencies ranked in the 4.6 to 6.5 Median Value Cluster.

Table 15c shows that M.S. respondents rated seven competencies in the high median value cluster all seven of which fell in the "good deal of confidence" level of performance. Graduates exhibited a high level of agreement on all item ratings with the exception of item 15., which showed a moderate level of agreement. It can be noted that the percentages of M.S. respondents not encountering these seven tasks range from 19.3 percent to 2.5 percent.

TABLES 16a, 16b, and 16c

ED.S. GRADUATES' RATINGS OF THE DEGREE OF COMPETENCE ATTAINED IN THIRTY-ONE SELECTED PROFESSIONAL COMPETENCIES AS A DIRECT RESULT OF GRADUATE PROGRAM PARTICIPATION

Table 16a ranks those competencies receiving a median value rating of 0.5 to 2.5.

Key: 0.5 to 1.5 = I have not encountered the task.
1.6 to 2.5 = I was incapable of performing the task.

N=28

	Competency	Graduate Rating		Graduates Not Encountering the Task	
		Median	IQR	N	%
28.	Planning to extend the opportunities and benefits of distributive education to as many students as possible.	1.2	3.0	19	67.8
25.	Establishing a student occupational organization.	1.3	3.1	16	57.1
29.	Providing superiors with specialized distributive education information relating to project proposals and long-range plans.	1.3	3.2	18	64.2
26.	Advising a student occupational organization.	1.5	3.8	14	50.0

TOTAL = 4 competencies ranked in the 0.5 to 2.5 Median Value Cluster.

Table 16a shows that Ed.S. respondents rated four competencies in the low median value cluster all of which fell in the "not encountered" range with between 50 and 67.8 percent of respondents not having encountered the task. Graduates exhibited a moderate level of agreement throughout the rating

with the exception of item 26., which carried a low level of agreement. Again, it should be noted that where the percentage of graduates not encountering a specific task is high, the IQR statistic is also high. Attention is called to the first three ranked competencies, numbers 28., 25., and 29., which were ranked in exactly the same order and placement by M.S. graduates as shown in Table 15a.

Table 16b ranks those competencies receiving a median value rating of 2.6 to 4.5.

Key: 2.6 to 3.5 = I felt uneasy in performing the task.
3.6 to 4.5 = I was capable of performing the task.

N=28

	Competency	Graduate Rating		Graduates Not Encountering the Task	
		Median	IQR	N	%
20.	Developing a plan to assist students in locating & securing jobs.	3.5	4.1	12	42.8
23.	Developing instructional units to use in working with unique groups such as the disadvantaged and handicapped.	3.7	3.7	11	39.2
19.	Establishing a plan, in cooperation with the counseling and guidance dept., that will assure all students opportunity to consider and review their career decisions.	3.7	4.4	10	35.7
16.	Establishing a program to involve on-the-job experiences as part of the career and occupational education program.	3.8	4.6	12	42.8
21.	Preparing a project proposal for funding career and vocational education programs based on state and federal guidelines.	3.8	3.7	8	28.5
18.	Devising a plan of public relations that will relate the career education program to the community.	4.0	4.3	10	35.7

Table 16b (continued)

	Competency	Graduate Rating		Graduates Not Encountering the Task	
		Median	IQR	N	%
17.	Planning with school personnel to establish career and vocational programs avoiding duplication of effort within the system and area.	4.1	3.8	8	28.5
38.	Understanding the legal responsibilities of various school officials.	4.1	3.7	7	25.0
13.	Coordinating the gathering, selecting & analyzing of data with respect to jobs available to graduates of an educational institution.	4.2	4.6	11	39.2
37.	Understanding negotiations as related to education.	4.3	4.1	8	28.5
36.	Understanding the management techniques including program planning budgeting systems.	4.4	2.2	4	14.2
43.	Utilizing computer systems with application to research projects, statistical or developmental.	4.4	1.9	4	14.2

TOTAL = 12 competencies ranked in the 2.6 to 4.5 Median Value Cluster.

Table 16b reveals that Ed.S. respondents rated twelve competencies in the mid median value cluster, one of which fell in the "uneasy in performing" range and eleven of which fell in the "capable of performance" level. Graduates exhibited a moderate to low level of agreement in the rating of these competencies. It

can be seen that between 14.2 and 42.8 percent of the Ed.S. respondents had not encountered the twelve tasks shown and rated here.

Table 16c ranks those competencies receiving a median value rating of 4.6 to 6.5.

Key: 4.6 to 5.5 = I felt a good deal of confidence in performing the task.
5.6 to 6.5 = I felt highly confident in performing the task.

N=28

	Competency	Graduate Rating		Graduates Not Encountered the Task	
		Median	IQR	N	%
39.	Understanding the state laws and state agencies as they relate to the school and vocational education.	4.6	1.4	2	7.1
24.	Designing an administrative plan and procedures for a program, school, or department.	4.7	4.1	9	32.1
*15.	Developing a plan to set up and work with steering and advisory committees.	4.8	4.6	9	32.1
22.	Planning and maintaining procedures to evaluate instruction for relevance and effectiveness.	5.0	1.4	3	10.7
*27.	Developing and maintaining effective interpersonal relations, group and individual.	5.1	1.0	2	7.1
32.	Understand, critically evaluate and utilize research performed by others.	5.1	1.0	0	-
34.	Teaching a lesson at the synthesis level.	5.1	1.3	4	14.2

Table 16c (continued)

	Competency	Graduate Rating		Graduates Not Encounering the Task	
		Median	IQR	N	%
41.	Articulating the vocational program with post-high school, apprenticeship committees, business community, general education.	5.1	2.8	6	21.4
33.	Researching, collecting and utilizing objective and tangible data as an approach to solving problems.	5.2	1.2	0	-
*14.	Developing or revising a curriculum to meet needs that have been identified.	5.3	1.1	2	7.1
*30.	Developing and relating a personal philosophy of education to the contemporary classroom.	5.3	1.6	5	17.8
*31.	Applying appropriate learning theories and principles in educational practice.	5.3	1.2	2	7.1
42.	Planning, conducting and reporting surveys.	5.4	1.3	1	3.5
*40.	Utilize and evaluate a variety of media for instructional improvement and maximal student learning.	5.5	1.3	0	-
*35.	Understanding the history, issues, principles, and philosophy of vocational education.	5.7	1.4	0	-

TOTAL = 15 competencies ranked in the 4.6 to 6.5 Median Value Cluster.

*See narrative on the following page.

Table 16c shows that Ed.S. respondents rated fifteen competencies in the high median value cluster, fourteen of which fell in the "good deal of confidence" level of performance, and one which fell in the "high confidence" level of performance. A high level of agreement was shown by graduates on all but three of the competencies, numbers 24., 15., and 41., each of which showed a larger number of graduates who had not encountered the task. It can be noted that the percentage of Ed.S. respondents not encountering these fifteen tasks ranged from 32.1 percent to zero percent. It can be further noted that all seven competencies rated by M.S. respondents in the high median value cluster in Table 15c also appear here, in the Ed.S. high median value cluster. These seven competencies are starred (*).

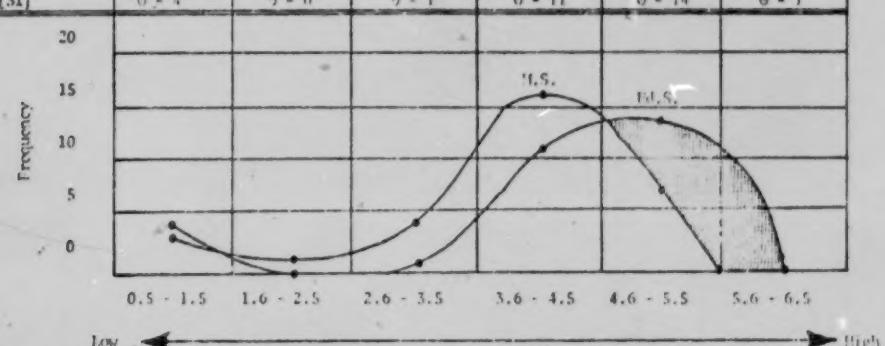
In summary, Tables 15 and 16 show that both M.S. and Ed.S. graduates rated themselves in a low performance level for four of the thirty-one competencies with median ratings showing M.S. graduates as not having encountered three of the four tasks and with Ed.S. graduates not having encountered four of the four tasks. M.S. graduates rated themselves in the middle performance level for twenty competencies while Ed.S. graduates rated themselves in the mid-performance level for twelve tasks. This mid-performance level indicates they were uneasy in performing the tasks to capable of performing the task. M.S. graduates rated themselves in the high level of performance for seven of the competencies while Ed.S. graduates rated themselves in the high performance level for fifteen of the tasks. This range indicated a good deal to high level of confidence in performing the tasks.

A comparison of criterion levels of performance for each of the thirty-one competencies between M.S. respondents and Ed.S. respondents was made and is shown in matrix form in Figure 9. Each competency number is listed on the left and corresponds to the numbers and competencies listed on Tables 15 and 16; the M.S. (Δ) and the Ed.S. (⊙) median value response is shown in the appropriate column on the right. The modal frequency distribution developed and displayed at the bottom of, and resulting from, totals of the various columns in the matrix highlights the comparison of the criterion levels of performance, the shaded area representing the higher level of competence perceived as attained by Ed.S. respondents over M.S. respondents.

Key: Δ = M.S. Graduates
O = Ed.S. Graduates

Median Range

Competency	0.5 - 1.5 Not Encountered	1.6 - 2.5 Incapable	2.6 - 3.5 Uneasy	3.6 - 4.5 Capable	4.6 - 5.5 Good Deal Of Confidence	5.6 - 6.5 Highly Confident
13.				Δ O		
14.					Δ O	
15.					Δ O	
16.				Δ O		
17.				Δ O		
18.				Δ O		
19.			Δ	O		
20.			O	Δ		
21.			Δ	O		
22.				Δ	O	
23.			Δ	O		
24.				Δ	O	
25.	Δ O					
26.	O		Δ			
27.					Δ O	
28.	Δ O					
29.	Δ O					
30.					Δ O	
31.					Δ O	
32.				Δ	O	
33.				Δ	O	
34.				Δ	O	
35.					Δ	O
36.				Δ O		
37.				Δ O		
38.				Δ O		
39.				Δ	O	
40.					Δ O	
41.				Δ	O	
42.				Δ	O	
43.		Δ		O		
Totals	Δ = 3	Δ = 1	Δ = 4	Δ = 16	Δ = 7	Δ = 0
(31)	O = 4	O = 0	O = 1	O = 11	O = 14	O = 1



Shaded area represents higher level of competency perceived by Ed.S. graduates

SECTION III. SUGGESTIONS FOR PROGRAM IMPROVEMENT

In this section graduates were given an opportunity to make suggestions or comments in open-ended format for Program improvement. There were three opportunities available: item 41. elicited reasons for any expressed negative reaction to the Program components in item 10. of the survey; item 42. allowed for suggestions of subjects or areas of study to enhance the Program; item 43. allowed for unlimited comments aimed at Program improvement.

Item 41. Program Component Reaction

Graduates were asked to give a brief explanation here for any expressed negative reaction to one or more of the Program components rated in item 10., page 2 of the survey. The negative reactions starred (*) in item 10. were SD* (strongly disagree) and D* (disagree). It was found that a total of sixty-one open-ended responses were made while a total of eighty-three negative reactions (as defined above) were reported on the computer printout. However, it appears from the responses that this question was confusing to respondents. Responses were both positive as well as negative, and a variety of the negative comments did not pertain to item 10. but rather to the Program in general. Therefore, responses pertinent to this item as called for in the survey were grouped and summarized and are detailed in this section. Statements not included here can be found in Appendix H.

The open-ended responses allowed for in this section were grouped into six areas corresponding to the areas or Program components rated in item 10. They were: Program advisement, research advisement, selection of electives, required coursework, course instruction, and Graduate College

admission requirements.

Program advisement. A total of four reasons for a negative rating on Program advisement were expressed by graduates. The reasons, which centered on both availability and soundness of Program advisement, were:*

> I found it often difficult to find my program adviser.
>
> My program and research adviser was overworked and had too many responsibilities. I feel that a buffer person could be put between student and adviser to take work load off adviser.
>
> Make sure advisers make clear their wishes or requirements to those under them, so there will be no misunderstanding as to requirements, time schedule, and other pertinent data.
>
> The adviser given did not fully help when needed.

Research advisement. Four respondents gave explanation for their negative rating on this Program component. These explanations were:

> There were those who ran into difficulty with the Plan B because of one adviser who wanted everything his way, said in his words, and written in his format. There must be a standard format with special rules for advisers.
>
> Major adviser should have knowledge of specific areas which the advisee has selected for his Plan B or A.
>
> The person who was my research adviser for both a tech. problem and Plan B paper had very little knowledge or understanding of my vocational field - consequently these two units turned out to be "typing exercises."
>
> The advisement I received on my paper was a total disaster! If we subjected high school students to the disorganization, lack of communication, and disregard for the student that I received during work on my thesis, we would be without jobs. The school changed the procedure for handling a Plan A in the middle of my paper without informing me of any change plus many other injustices too numerous to mention.

---

*Grammatical and/or spelling errors which existed in these responses were not modified.

Selection of electives. Nine respondents gave reasons for their negative reaction to the adequacy of elective selection within their Program. The comments categorized in this section were:

> Some of the courses I had were repetitive courses such as Principles of Voc. Ed., Admin. of Voc. Ed., and Coordination. It seemed to me that all these courses could have been offered in one course instead of three. There should have been more leeway in letting the student select a wider range of classes instead of being so structured as it was when I took my Master's. (1969)
>
> Administrative option block was very scanty in offerings. In addition the quality of the courses was the lowest in any grad work that I have ever had. Required certification courses were somewhat better than the Administration and Supervision courses, but all were bad.
>
> The selection of courses was limited in 1968 to a narrow range.
>
> I feel that more advanced shop-lab courses should have been available in the graduate program. This type of course would be more valuable to me in my present work than the courses I was allowed to take for credit toward my MS. I also feel that too much emphasis was placed on the Plan A or B paper. About half my course work pertained to writing a paper, survey, etc.
>
> Had taken many required courses at another level - had trouble filling my program.
>
> I felt Stout did not offer enough graduate courses in my specialty area of electronics.
>
> Even though I had some freedom in selecting curriculum of my choosing, I feel greater flexibility could be beneficial, especially in the area of the affective domain. More psychology of group dynamics would have been helpful.
>
> I would have been pleased with a few more education electives as I had no background in this area.
>
> The program did not allow me time to take courses in sheet metal and Foundry, and I feel that time spent in Research Foundations could have been put to better use on elective courses mentioned above.

Required coursework. The largest number of responses to this item were grouped in the area of required coursework. Fifteen graduates gave their reasons for a negative reaction to this Program component. They were:

Required coursework could have been more practical - less on theory - have more actual Voc Ed administrators teaching these courses - group discussion type.

I do wish that my program would have contained more information or courses dealing with instruction itself, especially with vocationally oriented students.

Many Stout people, myself included, thought some additional technical coursework would be important as part of a masters degree. This would support the philosophy of Dr. Micheels "Learn to do something well."

Some required courses had little or no relevancy in my field.

Supervision and administration courses did nothing to increase my knowledge or proficiency in these areas. Most of the courses were far too easy and do nothing to invite competition and therefore initiative. There is little challenge.

I wish to have had more courses required in my tech field, rather than ed philosophy, etc. Today to be top flight in your profession, you have to keep abreast of new developments, not old philosophy.

When taking Principles of Supervision it seemed that the instructor's lesson plans & quizzes were made up by someone else. They didn't appear to be structured for our specific area. Research procedures seemed to be too much theory and not enough application.

Required courses seemed canned and information was rather irrelevant, I though I could do better by picking my own courses.

Research and statistics courses may be fine for people doing that type of work-but I need help in using and understanding results.

Some of the things I learned in Research Foundations contradicted what industry stressed. R.F. stressed 3rd person writing. Industry trend was "tell it like it is" in a personal manner. Later on, some of the B paper requirements contradicted what I learned in Research Found.

Probably the most demanding course in my MS program was also the least valuable - i.e. Research Foundations. I felt (and still feel) that most of that course was unnecessary. Possibly it could be broken up into 3 or 4 mini-courses to be selected as they are needed.

Course material must be more realistic. Instructors should have work experience related to their course offerings. How can college instructors teach what they have not experienced.

Plan B paper should be dropped. Students should be required to communicate both orally and in written form at a much higher cognitive level than presently required in the Plan B paper.

Some people don't like statistics. I think I could have chosen a class that would have helped me more. A 200 course was the best course I took as a graduate student. At times I felt M.S. meant "more of the same." If you could completely tailor a course to a student's needs it would be ideal.

As I recall, our program of courses was rather rigid. I took one undergrad course for grad credit, but nearly had to "sign" my life away. I think many times a veteran teacher would like to pick up a couple of technical undergrad courses which he might particularly be able to use in his teaching instead of some curriculum or education course.

Course instruction. Nine respondents expressed reasons for their negative reaction to the overall - and in some cases, specific - instruction they encountered. These comments concerned both the presentation and the effectiveness of the instruction. They were:

Some of the instructors considered it a privilege if you had them for a certain class. The summer school classes didn't seem to have the emphasis that regular session classes do. I expected more information more relevant to my situation, but it didn't seem to come through to me.

Some instructors were excellent and professional. In some courses the discussion was similar to that in the Silver Dollar.

I did feel one course was rather "loose," namely Philosphy. One needed only to attend class. I read assignments religiously but need not have.

Some instructors at Stout need to use new and different educational techniques. An institution that is training teachers needs to use the best methods possible. Not only lecture.

I felt courses such as Educational Administration and others the instructor must perform better. He, in some instances, did not even report for class and when he did he would dismiss the class early.

Some courses were repetitive in content. One instructor was very poor, several others could use improvement in technique and relevance of materials presented.

Some of the courses were boring as information wasn't needed and not presented to keep one's interest.

Instructors in Administration and Supervision areas were complete duds. Too much time was spent preparing me to do research and a plan B paper. (Not my area of preparation.)

It is difficult to respect an instructor that has to use profanity to express his opinion. The same hold true for an instructor that spits on the floor.

Graduate College admission requirements. Three respondents made comments on the graduate college admission requirements. The comments were:

I didn't think too much of the G.R.E. and am glad you discontinued using it.

People taking night classes (graduate) on campus and commuting should not be required to pay any more fees than somebody taking the same class off campus.

Admission requirements are so low that pride suffers somewhat.

Item 42. Subjects or Areas of Study Suggestions

In this item, graduates were directed to limit their suggestions or comments to ideas, courses and/or areas of study that they felt would be of value in a graduate Vocational Education Program.

Many of the respondents listed new areas of study which they felt would enrich the experiences of a student participating in the Program. A number of respondents listed areas of study which this university now offers.

All suggestions listed by the respondents were recorded on a master sheet by the researcher. Six course areas were identified to categorize the 187 suggestions made by respondents. These course areas were: (1) Administration and Supervision, (2) Professional Education (General), (3) Industrial-Vocational Teacher Education, (4) Teacher Education, (5) Technical, and (6) Vocational-Technical Education. Each suggested course was categorized into one of the six identified course areas. The parentheses ( ) and number following each suggestion represent the number of respondents suggesting this specific course.

Administration and Supervision. A total of seventy-eight course suggestions were listed by the respondents for this area. These suggestions include both new courses and courses presently offered at this university. The suggested courses for this category total the largest of the six categories and include:

Courses

School Law - Legal Responsibilities of School Officials (18)
Budgeting Management Systems (11)
*Practical Administrative Management Techniques (9)
Adminstrative Finance in Public Schools (Including Federal Funding) (9)
*Practical Vocational Supervision (7)
Personnel Management (6)
Community Public Relations (5)
*Practical Vocational Coordination (4)
Field Experience in Supervision, Coordination, Administration (2)
Research Experience (2)
Independent Study in Supervision and Administration
Needs Assessment Methods
School Safety and Disaster Planning
Data Management
Articulation - Federal, State, Local

*The word "practical" is underlinded here because respondents stressed that these particular courses had to be practical as opposed to theoretical.

Professional Education (general). Respondents listed twenty-six suggestions in this area. These included both new courses and courses presently being taught at this university. Suggested courses include:

Courses

Management by Objectives (4)
Politics and Education (4)
Ph.D. or Ed.D. (3)
Adult Education (2)
Leadership Skills (2)
Value Clarification (2)
Seminar Development
Futurism
Human Relations Skills
Statistics - Usage and Interpretation

Affirmative Action
Goal Analysis
Decision Making
General Semantics
Systems Analysis Design

Industrial-Vocational Teacher Education. Nine course areas were suggested for this category, the majority of which were for curriculum development and teaching techniques. They are:

Courses

Creative Vocational-Technical Curriculum Development (5)
Shop Safety and O.S.H.A.
Advanced Teaching Experience
Simulation Techniques in Industrial Arts Classes
New Techniques in Teaching Industrial Arts

Teacher Education. There were thirty courses suggested in this area, the largest number concerning negotiations as related to education, which is not at present an instructional unit at this university. The following courses were suggested:

Courses

Negotiations as Related to Education (8)
Instructional Evaluation (5)
Community Education (3)
Speaking Skills (3)
Teaching Techniques (3)
Competency Based Education (2)
Task Analysis (2)
Problem Solving
Conflict Resolution for Teachers
A-V Course Involving T.V. and Videotaping
Instructional Development

Technical. Respondents listed twelve suggestions which were categorized in this section. The accent for some of these suggested courses was on their being advanced technical units for instructional enrichment and improvement. They were:

Courses

Electronics (3)
Aerospace Workshop (2)
Advanced Technical Courses (2)
Tool and Die Work
Advanced Metal Fabrication
Industrial and Light Building Construction
Special Seminars (short courses) in Technical Problems
Structural Design

Vocational-Technical Education. Thirty-two course suggestions were placed in this category. Approximately half of the suggestions represent courses not at present offered at this university. These suggestions were:

Courses

Computer Usage in Vocational Education (8)
Field Experience (internship) in a Problem Area of Vocational Education (4)
Affective Vocational Education (3)
Philosophy and Psychology of Work (Terkel and Herzberg) (3)
Student Organization Establishment and Adviser Training (3)
Current Issues Seminar (2)
VTAE in States Other Than Wisconsin (2)
Career Development - Career Education (2)
Politics and the VTAE System
Independent Study in a Problem Area
Project Proposal Writing
Planning for the Handicapped in Vocational Education Classes

Item 43. Comments to Improve the Graduate Program

In this item, graduates were given an opportunity to make any additional comments which they felt may help to improve the Program. A total of sixty-nine comments were received. These suggestions were recorded on a master list and categorized into six main groups. These groups were: the Program in general, courses, instruction, requirements, advisement, and interpersonal relations. The comments categorized and listed below were

reprinted verbatim as they appeared on the survey instrument.*

The Program. Twenty-three respondents made comments on the Program in general. These comments tended, on the average, to display a positive attitude toward the Program. The comments categorized in this section were:

Plan for internships and/or practice teaching experiences.

I feel the graduate program was more than adequate for my needs.

Provide more opportunities for individualized and personalized contact and experience with "real life" situations, personnel, and responsibilities. This should include short term contacts as well as internships.

Offer more concentrated courses (Ed.S.) for persons unable to be away from their jobs for more than several weeks at a time.

Have major areas of specialty listed on the degree.

I think that Stout generally did a fine job of conducting their graduate program.

I was totally pleased with the program. I especially enjoyed the lattitude of choice of electives that was available to the candidate to allow one to design a program according to their needs.

Overall program was excellent.

Excellent program - no additional comments or suggestions.

Do something with registration and program planning. I felt very much in the air as to if I would graduate - what my credits meant, etc., during all of my program.

I can only say that my experience in the Ed.S. Program was very positive. The program provided flexibility to meet the individual needs of the students enrolled.

The basic program is sound, but because many MS and EdS graduates will become administrators more administration courses are necessary.

Generally has been good as it is now organized, keep a variety of types of instruction and instructors and also like the variety of

---

*Grammatical and/or spelling errors which existed in these responses were not modified.

module courses of different lengths.

Except for a few experiences the graduate program was good.

I felt very comfortable in the graduate program at Stout and feel the reason for this is that I had taught for 3 years after I got my BS degree before I returned for Graduate work.

It is full time for Stout doctoral program to become a reality.

I am continually hearing of more persons going out of state for PhD's because they can obtain them with a minimum of time away from their job.

Keep allowing students to have the opportunity to choose certain areas of concentration.

I feel that the flexibility in the Ed.S. program is outstanding. Restricting that flexibility would not enhance the program.

It is a very fine program and I am very satisfied with Stout and the instruction I received. I wish you could eliminate out-of-state tuition.

I strongly encourage the opening of an EdD or PhD program as soon as possible.

The Ed.S. program was excellent without exception. Flexibility was good, yet standards were maintained.

I was happy with the program I had and felt that Stout treated me fairly, with respect and as an adult human being. Keep it up.

Courses. Nineteen respondents commented on the courses in the graduate program. While some respondents tended to exhibit a negative attitude toward some of the courses, other graduates responded with positive suggestions for course improvement. The comments placed in this category were:

Allow student to take as many courses in electives as he can show a need for.

More short courses for those with only three weeks of vacation.

I hope present courses concentrate on the practical approach rather than theory.

More technical courses in the student's area.

Eliminate the Plan B paper and research course.

Although I believe my graduate experience was excellent I never knew of the programs in Fisheries Education or Agriculture which are prevelent in many communities and are part of the Vocational Education spectrum.

Revise courses to current educational practices.

Provide for more student input into courses, mostly by regularly having students evaluate each course, content and instruction.

Allow grad students to take a shop or tech course as part of their graduate work. Many want to take a course but can't fit it in because of required courses.

More short courses that could be offered during the summers to allow administrators to participate.

Allow more flexability in student selection of his/her courses to relate to his specific job assignments and/or personal goals.

Find little value in Plan A and Plan B.

Make Research Found. & Plan A and B or Tech. Problems all utilize some united direction. Each is segmented and must have student combine course efforts into finished paper. Have better coordination among instructors involved with these courses.

More practical emphasis in courses in Supervision and Administration. Too much theory!

Philosophy of Modern Ed and High School Curriculum courses seemed too basic. I feel these courses could be packaged or presented in a fashion other than a formal classroom setting.

Some of the topics such as competency based instruction, self-pacing, affective domain vs. cognitive vs. psycho-motor, etc. need to be more strongly stressed. The new clustering of Ind. Ed. programs is essential to movement at the local secondary level.

Plan B is just an exercise in busy work, zero learning is achieved in usefulness to the acutal on-the-job problems.

I question the effectiveness of Plan B. I feel courses pertinent to Voc. Ed. would be useful instead of the time spent on the one paper.

A class presented by an experienced LVEC would be helpful to new LVEC's dealing with: forms(VE), surveys, public relations, salary, responsibilities, youth groups.

Instruction. Ten subjects responded with comments on instruction. The respondents tended to exhibit a negative feeling for the instruction encountered in the Program. The comments were:

Keep course content current - utilize guest consultants.

More teachers from industry to tell and show what is going on and what is taking place on the job. Instructors are out of it.

Some of the instructors and instruction is a little dated and they need to be up-dated to keep abreast of the times.

Bring in business executives to teach some short courses to allow students exposure to people other than professional educators.

You might give out some B's and C's to those who don't participate or show up for classes.

Get people at Stout to teach subject matter that they are specialists in.

Instructors must be made aware that high school is terminal for many students (over 50%), not just a hobby thing or another step along the way.

Don't water down grading system just to keep students in grad school.

Screen graduate faculty for competency. Better choice of electives. Make plans more flexible for student.

Continue to make the requirements and instruction relevant, appropriate, and worthwhile.

Requirements. Eight respondents commented on and questioned various Program and university requirements. The comments which were placed in this category were:

Reduce the resident (on campus) requirement for Post Graduate studies.

Is there anything that can be done to reduce the out-of-state fees for Stout alumni who would like to come back?

Before allowing a student to enter a graduate program he should have at least one full year of teaching.

I do not know if anything can be done about the out-of-state fees; however, at present this is difficult to overcome. I feel that out-of-state students are an asset to the program, loosing them because of

financial reasons would be a loss.

I feel that the graduate student should have at least 2 yrs. of teaching experience before being allowed to enroll in the program. Given theories of education doesn't seem to help someone without experience, there is no way that they can relate what is being discussed to every day situations.

The 7 yr. limitation on graduate credits should be changed to include some or possibly all credits earned at Stout at the graduate level. The credits lost to a teacher because of the 7 yr. limitation are also lost to him on the salary schedule of some institutions. Thus, a teacher is penalized, in a sense, for completing work towards an MS.

Advise or require those who want to pursue advanced degree that they work 2 years before MS, 3 yrs. before EdS. This idea of BS-MS-EdS without going to work in between doesn't expose individual to real issues.

Perhaps out-of-state candidates should be required to do their research project (either Plan A or B) while in residence on campus-or something to keep closer contact between advisee and adviser.

Advisement. Three subjects responded with positive comments on the advisement encountered in the Program. These comments were:

The very practical and helpful method of advising student by Dr. Halfin was extremely welcomed and appreciated.

Compliment Dr. Halfin more.

Try student advisers to work with beginning students.

Interpersonal relations. Six respondents made comments which were grouped together under interpersonal relations. These comments were mainly positive in nature and accented the personal contact encountered:

You are doing a fine job! Keep up your close contact with students-this is what make you better than the rest.

Maintain the "personal touch" that your school has done so excellently in the past.

Continue with the personal relationship each graduate has been getting.

Work closer with UW-Wisconsin so they know the course content in the Ed.S. area.

Your strength lies in the student/professor-student/adviser relationship. The finest I have experienced in four degree programs.

I was treated as a peer not a subject. A wonderful relationship.

EMPLOYER EVALUATION

The final section of the follow-up instrument was designed to gather evaluative information from supervisors/employers of Program graduates concerning the adequacy of the graduate's educational preparation. Employers were also asked for their opinion as to the importance they attached to various selected study areas in an educational program. The employer instrument is provided with the main survey in Appendix B.

The employer questionnaire was first sent to the graduate for viewing along with the main survey instrument. Permission to send the survey on to the employer was requested of the graduate and was considered granted upon return of the signed employer survey form along with the completed follow-up questionnaire.

A total of 102 signed employer questionnaires were returned by graduates which could be mailed on to employers. Nine more questionnaires were received; one was too late to process, three were marked "self-employed", one was marked "unemployed", and four gave various reasons for not being able to give permission for employer evaluation. In addition, a number of graduates passed the survey directly on to their employers as thirty-nine completed employer questionnaires were received in this manner.

The 102 signed questionnaires were mailed to eighty-six employers on April 9, 1975. By May 1, 89.5 percent of the employers had completed and returned their questionnaires. On May 2, a follow-up letter was sent

to all employer non-respondents. This follow-up procedure elicited completed questionnaires from an additional 7 percent of the employer survey population bringing the total employer response rate to 96.5 percent by May 13. A copy of the employer follow-up letter can be found in Appendix D. In summation, a total of 150 questionnaires, or 70.8 percent of those sent out in the initial mailing, were returned by graduates or employers of graduates, 138 of which were usable.

Following the same procedure used in the student survey, data were key punched and processed at the UW-Stout Computer Center using the Weighted Score Analysis Program. A total of 138 employer surveys were sent for processing; however, due to a key punching error, 135 questionnaires were tabulated by computer.

Educational Preparation Evaluation

The first four of the five items on page 1 of the employer survey were designed to assess the graduate's educational preparation. Employers were asked if, in their opinion, the graduate/employee exhibited adequate educational preparation to perform the job for which employed. Employers responded as follows:

	Employers of Ed.S. Graduates N=24	Employers of M.S. Graduates N=111
Yes	24	109
No	0	1
Omits	0	1

In summary, response to item 1. indicates that employers of M.S. and Ed.S. graduates, in almost unamimous agreement, rated the graduate/employee as exhibiting adequate educational preparation to perform the

job for which employed.

In the second item, employers were asked to respond in open-ended format to the following statement: Would you please identify those areas in which you feel he/she is exhibiting above-average job preparation skills. The 169 responses were copied on a master list and categorized into major areas. Those areas identified five or more times are listed below with response numbers:

Areas of Above-average Job Preparation Skills:

Employers of M.S. Graduates	No. of Responses
Instruction	61
Communication Skills	28
Curriculum Development	15
Organization	15
Public Relations	8
Administration	8

Other areas mentioned by employers wherein M.S. graduates were exhibiting above-average job preparation skills were: supervision, research, leadership, technical skills, advisory council work, coordination, and an understanding of the Principles of Vocational-Technical Education.

Following are the most mentioned of the fifty responses of employers of Ed.S. graduates indicating those areas in which Ed.S. graduates were exhibiting above-average job preparation skills:

Areas of Above-average Job Preparation Skills:

Employers of Ed.S. Graduates	No. of Responses
Instruction	11
Curriculum Development	7
Communication Skills	6
Research	6
Administration	5
Organization	3
Supervision	3

Other areas mentioned by employers wherein Ed.S. graduates were exhibiting

above-average job preparation skills were: public relations, recruiting, task analysis, and decision-making.

In summary, response to item 2. indicates that employers of M.S. and Ed.S. graduates rated instruction, communication skills, and curriculum development highest as areas in which above-average job preparation skills were noted. M.S. graduates were rated well in organization, public relations and administration while Ed.S. graduates were rated well in the areas of research, administration, organization and supervision.

In the third item, employers were asked to respond in open-ended format to the following statement: Would you please identify those areas for which you feel he/she should have received more or better educational preparation. It was hoped that through this item a major lack or deficiency in the Program could be discovered. Those areas receiving the largest numbers of responses were: interpersonal relations - 14, communications - 14, supervision - 10, curriculum development - 4, budgeting - 4, teaching techniques - 3, research, decision-making, working with the disadvantaged, project proposal writing, record keeping, youth group organization, planning and organizing, individualized instruction, group dynamics, recruiting procedures, leadership, evaluation, public speaking, Career Education, and technical knowledge.

In summary, it appears from response to item 3. that with the possible exception of interpersonal relations, no major Program problem area was identified by employers of graduates. While the ar[illegible] communications and supervision were mentioned in 14 and 10 responses respec[illegible]ely, these areas were also identified in item 2. as being areas in which graduates were exhibiting above-average job preparation skills.

In the fourth item, employers were asked to judgmentally rate the degree of preparatory skill exhibited by Program graduates in the following nine selected general competencies: oral communication, written communication, problem solving, ability to organize, ability to analyze, research, leadership, decision-making, and interpersonal relations. The first eight of the preceding nine competencies were identical to those in item 11., page 2 of the main survey instrument in which Program graduates rated themselves. The ninth competency, interpersonal relations, was deemed important and added after the main survey instrument was printed, with the result that this competency was rated only by employers. The eight competencies identified and listed on both forms were designed to ascertain and compare graduates' and employers' ratings of competency achievement.

Employers were asked to circle their response on the following numerical rating scale:

(Circle one)

Degree of Influence				
None				Strong
1	2	3	4	5

Responses are presented in Table 17 showing the median value ratings for each competency for the M.S. graduates and for the Ed.S. graduates as well as the IQR statistic.

A view of Table 17 as a whole shows that employers were in a high level of agreement in assigning M.S. graduates median ratings in the moderate to strong degree range of 3.4 to 4.2 and in assigning Ed.S. graduates median ratings in the strong degree range of 4.0 to 4.6. M.S. graduates were rated highest in the ability to organize 4.2, problem solving 4.1, oral communication and ability to analyze each 4.0. Decision-making and interpersonal relations each 3.9, leadership 3.8, written communication

TABLE 17

EMPLOYERS' RATINGS OF THE DEGREE OF PREPARATORY SKILL EXHIBITED BY PROGRAM GRADUATES IN NINE SELECTED GENERAL COMPETENCIES

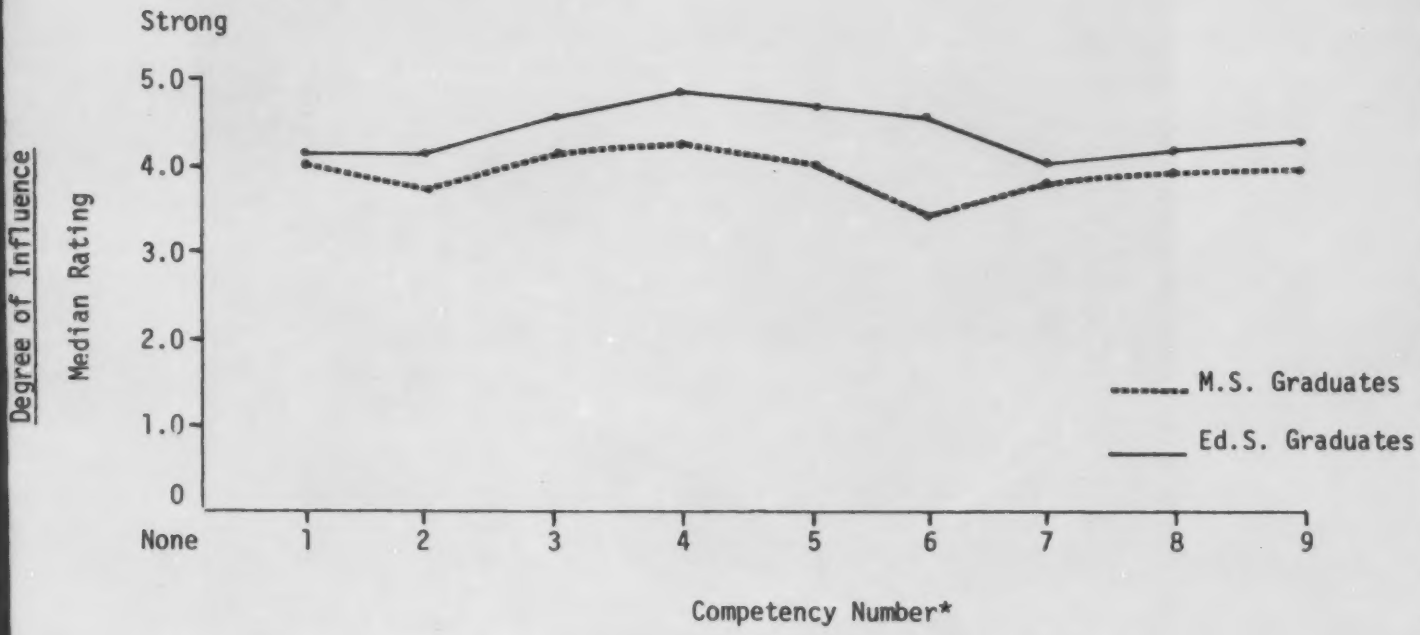
Competencies	M.S. Graduates N=111		Ed.S. Graduates N=24	
	Median	IQR	Median	IQR
(1) Oral communication.	4.0	1.3	4.1	0.9
(2) Written communication.	3.7	1.4	4.1	1.5
(3) Problem solving.	4.1	1.0	4.3	1.1
(4) Ability to organize.	4.2	1.1	4.6	1.2
(5) Ability to analyze.	4.0	1.2	4.4	1.2
(6) Research.	3.4	1.3	4.3	1.9
(7) Leadership.	3.8	1.4	4.0	1.3
(8) Decision-making.	3.9	1.2	4.1	1.2
(9) Interpersonal relations.	3.9	1.2	4.2	1.3

3.7, and research lowest with 3.4. Ed.S. graduates were rated highest in ability to organize 4.6 and ability to analyze 4.4. Competency achievement in research and problem solving were also rated high with 4.3, interpersonal relations 4.2, oral and written communications and decision-making 4.1, and leadership 4.0.

In summary it should be noted that competency ratings by employers were generally high for both groups; however, on each competency Ed.S. graduates were assigned median ratings higher than M.S. graduates ratings indicating that employers felt Ed.S. graduates exhibited a higher degree of preparatory skill in the nine selected general competencies than M.S. graduates. Figure 10 was designed to give a quick visual comparison of the

FIGURE 10 (Relates to Table 17)

A COMPARISON OF EMPLOYERS' RATINGS OF THE DEGREE OF PREPARATORY SKILL EXHIBITED BY M.S. and ED.S. GRADUATES IN NINE SELECTED COMPETENCIES.



*(1) Oral communication.

(2) Written communication.

(3) Problem solving.

(4) Ability or organize.

(5) Ability to analyze.

(6) Research.

(7) Leadership.

(8) Decision-making.

(9) Interpersonal relations.

median ratings for M.S. and Ed.S. graduates as rated by employers of the graduates.

Item 4. also provided data through which a comparison could be made of the personal competency achievement level attained as perceived by the graduate compared to the attained competency level of achievement as perceived by the employer of the graduate. The mean and standard deviation statistics were used for comparison in order to test for a significant difference between responses of the two groups. The test used for this analysis was the t test of differences. Table 18 displays mean and standard deviation statistics for each of the eight competencies as assigned by graduates rating themselves and as assigned by employers rating the graduates. The ratings of the 135 employer responders as well as the ratings of the 135 graduates they rated were used in this comparison.

Table 18 shows that graduates rated themselves as average to slightly above average on the five-point rating scale with means of 3.08 to 3.91 indicating competency achievement level. The employers of the graduates, however, rated graduates slightly above to above average with mean figures of 3.20 to 4.15. On all but one task, that of research, employers rated graduates as attaining a higher mean level of competency as a result of Program participation than was perceived and rated by the graduates themselves. In order to determine whether the observed difference in ratings between the two groups was significant or whether it can be attributed to chance, the t test of differences was utilized and applied. For a significant difference to exist at the .01 level with 125 degrees of freedon, the t must be equal to, or more than, 2.616. For a significant difference to exist at the .05 level with 125 degrees of freedon, the t must be equal to, or more than, 1.979. It was found and is shown in Table 18 that there was indeed a significant

TABLE 18

A MEAN VALUE COMPARISON OF GRADUATES AND EMPLOYERS RATINGS OF THE DEGREE OF INFLUENCE OF THE GRADUATE PROGRAM ON THE GRADUATE'S PERSONAL DEVELOPMENT IN EIGHT SELECTED GENERAL COMPETENCIES.

N=135*

Competency	Graduates Rating			Employers Rating			t Value
	Mean		Stand. Dev.	Mean		Stand. Dev.	
1. Oral Communication	**(8)	3.08	1.065	**(4)	3.97	0.897	-7.571
2. Written Communication	(6)	3.48	1.132	(7)	3.72	0.972	-2.022
3. Problem Solving	(4)	3.67	0.983	(2)	4.05	0.822	-3.542
4. Ability to Organize	(3)	3.74	1.057	(1)	4.15	0.854	-3.566
5. Ability to Analyze	(2)	3.82	1.054	(3)	3.99	0.876	-1.431
6. Research	(1)	3.91	0.901	(8)	3.20	1.366	5.256
7. Leadership	(7)	3.46	0.896	(6)	3.74	0.959	-2.875
8. Decision Making	(5)	3.65	1.008	(5)	3.82	0.983	-1.437

*The ratings of those graduates who were rated by their employers (135) were used and included in this comparison.

**Rank.

difference in perception between the two groups at the .01 level for five competencies: oral communication, problem solving, ability to organize, research, and leadership. A significant difference was established between the two groups at the .05 level for one competency: written communication. No significant differences were identified between the two groups for two competencies: ability to analyze and decision-making.

A rank order of mean values can be found in Table 18 in parentheses preceding the mean statistic, showing that employers and graduates are not in general agreement in ranking competencies in achievement level order.

The fifth item on page 1 of the employer survey was designed to elicit from employers in open-ended format suggestions of subjects or areas of study which they identified as becoming increasingly important to provide for future students in Vocational Education. Sixty-five responses were tabulated on a master list. Those areas receiving a significant number of responses with the number of responses following in parenthesis were:

Interpersonal Relations (16)
Career Education (8)
Advanced Training in Technical Skill Areas (6)
Leadership Training (5)
Individualized Instruction (5)
Related Occupational Experience (4)

Other responses included: Service Trades, Computer Technology, Disadvantaged, Legislation, Budgeting, Open-entry Classes, Program Management, Consumer Education, and Computer-based Instruction.

In summary, in item 5. a significant number of employers emphasized that Interpersonal Relations and Career Education are two areas which they felt would be important to include in the Program for future participants. Employers also suggested that Technical Skills, Leadership Training, Indi-

vidualized Instruction, and Related Occupational Experience were important areas of study for future students.

The Importance of Various Selected Study Areas

The last item included in the employer survey was to be completed by supervisors/employers in the field of education only. In addition, those educational employers who employed more than one graduate subject were asked to complete only one rating. A total of 110 employers completed this survey item. It was designed to elicit employer opinion as to the degree of importance they assigned to various selected study areas in an educational program. The twenty-nine study areas selected were synthesized from the thirty-one competencies listed in Section II. of the main survey.

Employers were asked to check their response on the following numerical rating scale:

Degree of Importance				
Unnec-essary (1)	(2)	Desir-able (3)	(4)	Essen-tial (5)

Responses are presented in Table 19 showing the median value ratings displayed in rank order for each study area as well as the IQR statistic.

Table 19 shows that employers generally displayed a high level of agreement in rating the degree of importance of the twenty-nine areas of study. The highest median rating assigned was 4.7 or essential; the lowest rating assigned was 2.9 or desirable; all items then being rated in the desirable to essential categories. It appears that employers, while giving some areas of study a higher priority order, feel that all twenty-nine areas are important to include in an educational program.

TABLE 19

EMPLOYERS' RATINGS OF THE DEGREE OF IMPORTANCE ASSIGNED TO TWENTY-NINE SELECTED EDUCATIONAL STUDY AREAS

N=110

*No.	Areas of Study	Employers' Ratings	
		Median	IQR
4.	Evaluating instruction	4.7	1.1
8.	Utilizing a variety of teaching strategies	4.7	1.0
23.	Developing and maintaining effective interpersonal relations, group and individual	4.6	1.4
15.	Developing and revising curriculum	4.5	1.2
7.	Applying theories and principles of learning in developing instructional units and managing the classroom	4.3	1.2
11.	Articulating the vocational program with in- and out-of-school educational programs	4.1	1.3
20.	Understanding and utilizing public relations skills	4.1	1.3
9.	Mediating instruction	4.0	1.2
16.	Organizing and participating in steering and advisory committee activity	3.9	1.4
12.	Gathering, selecting and analyzing data on job opportunity and availability for students	3.9	1.6
29.	Understanding the relationship of state laws and state agencies to vocational education	3.9	1.6
14.	Applying techniques of vocational guidance in job placement and selection	3.8	1.3
21.	Vocational planning and development at the administrative/supervisory level	3.8	1.4
13.	Planning in cooperation with the counseling and guidance department, to provide for student career decision-making	3.7	1.5
3.	Planning instructional units for unique groups such as the disadvantaged and handicapped	3.7	1.6

*Number as it appeared in item 6 of employer survey.

Table 19 continued N=110

*No.	Areas of Study	Employers' Ratings Median	IQR
28.	Understanding legal responsibilities of various school officials	3.7	1.6
22.	Project proposal development	3.6	1.4
5.	Utilizing the project method and/or simulation in instruction	3.6	1.5
6.	Developing and relating a personal philosophy of education to the contemporary classroom	3.6	1.6
26.	Utilizing program planning budgeting systems	3.5	1.4
24.	Evaluating and utilizing educational research.	3.4	1.3
19.	Articulating career development studies within a school system	3.4	1.4
27.	Understanding mgt./employee negotiations as related to education	3.4	1.6
2.	Establishing and advising student occupational organizations.	3.3	1.3
25.	Research procedures with emphasis on developing and applying skills	3.3	1.4
10.	Understanding the history, issues, and principles of vocational education	3.3	1.6
1.	Utilizing the cooperative occupational education method of instruction	3.2	1.3
17.	Planning, conducting and reporting surveys	3.1	1.3
18.	Applying computer technology to research projects	2.9	1.3

*Number as it appeared in item 6 of employer survey.

CHAPTER SUMMARY

A total of 204 Program graduates were identified as having received their Master's Degree in the years 1968, 1969, 1970, 1971, and

1974; a total of 32 graduates were identified as having received their Education Specialist Degree in 1970, 1971, 1972, 1973, and 1974. The follow-up survey designed and developed for this study, including two follow-up attempts to non-respondents, elicited responses from 189 of the 212 Program graduates contacted, a return of 89.2 percent.

Selected personal data provided by the respondents revealed that 182 out of 183 graduates were employed. Of these, 92.3 percent were employed in education, 6.5 percent in business or industry, and 0.5 percent in government. A total of 91.8 percent were determined to be employed in jobs directly related to their educational program, 2.1 percent in jobs bearing some relatedness, and 4.9 percent in jobs having no relatedness to their educational program. A total of 41.8 percent of Program graduates indicated they had gone on for further education, three having received an Ed.S. degree, one having received a Ph.D. Degree. Of the responding graduates, 26.2 percent had no intention of enrolling in an advanced program, 37.7 percent were undecided, and 29.5 intended to enroll. Response to a job placement query showed that the majority of Program graduates, or 59 percent, returned to their prior jobs. Other placement means, in percentage rank order, were: The Stout Career Planning and Placement Center, a personal contact, an advertisement or job description, and a Stout faculty member. Stout faculty did, however, figure in the placement of 10.7 percent of Ed.S. graduates.

Response medians to the Generic Section of the survey showed that graduates as a whole in a moderate level of agreement felt Program influence on seven job situations was moderate to strong and ranked the situations by median value in the following order: salary potential, present salary, immediate salary upon graduation, job opportunities in

new areas, job satisfaction, job advancement, and job opportunities in present area. Analysis of the two groups separately revealed that M.S. and Ed.S. graduates were not in agreement as to the rank order shown.

Graduates reacted to eight selected Program components exhibiting a high level of agreement. There was agreement to strong agreement that they received sound program and research advisement when they needed it, admission requirements were realistic, selection of Program electives was adequate, and that course instruction was professionally presented and effective. There was a difference of opinion between M.S. and Ed.S. graduates on the appropriateness of required coursework to their program with Ed.S. graduates agreeing and M.S. graduates tending to agree with the item statement.

In a high level of agreement, graduates rated Program influence moderate to strong on personal development in eight general competency areas which, in median rank order, were: research, ability to organize, ability to analyze, problem solving, decision-making, written communication, leadership, and oral communication. Ed.S. graduates ratings were consistently higher than M.S. graduate ratings indicating that Ed.S. graduates felt their Program more strongly influenced personal competency development in each competency area.

Graduates, in a high level of agreement, assigned a moderate to high degree of usefulness rating to one or more of eight possible graduate experiences rating only those they had encountered and ranking them by median value in the following order: internship, teaching experience, assistantship, Plan A Thesis, practicum, synergistic experience, Research Foundations class, and Plan B. The last two experiences listed were experienced and rated by the highest number of graduates.

Specific Program evaluation centered upon the graduates rating of the degree of competence they attained in thirty-one specific competencies central to Vocational Education. M.S. and Ed.S. graduates both rated themselves in a low performance level for four of the thirty-one competencies; M.S. graduates rated themselves in the middle performance level for twenty competencies while Ed.S. graduates rated themselves in the mid-performance level for twelve tasks; M.S. graduates rated themselves in a high level of performance for seven competencies while Ed.S. graduates rated themselves in a high performance level for fifteen of the tasks, indicating that a higher level of competency was perceived as attained by Ed.S. respondents over M.S. respondents. A listing of the thirty-one competencies in rank order of median values can be found in tables 15 and 16 of Chapter 4.

With graduates permission, 102 questionnaires were mailed to 86 employers. Following one follow-up of non-responders, a 96.5 percent response rate was achieved.

Employers, in almost unanimous agreement rated the graduate/employee as exhibiting adequate educational preparation to perform the job for which employed.

Employers of M.S. and Ed.S. graduates, when asked to identify in open-ended format those areas in which employees exhibited above-average job preparation skills, rated instruction, communication skills, and curriculum development highest. M.S. graduates were also rated well in organization, public relations and administration while Ed.S. graduates were rated well in the areas of research, administration, organization, and supervision. When asked to identify in open-ended format those areas in which employees should have received better educational preparation, with the possible exception of interpersonal relations, no major Program

problem area was identified by employers.

When employers were asked to rate the degree of preparatory skill exhibited by graduates in the competency areas of oral communication, written communication, problem solving, ability to organize, ability to analyze, research, leadership, decision-making, and interpersonal relations, they replied within a high level of agreement by assigning median value ratings for graduates in the moderate to strong range. While M.S. and Ed.S. graduates ratings differed in rank order and were generally high for both groups, it should be noted that on each competency Ed.S. graduates were assigned median ratings higher than M.S. graduates ratings indicating that employers felt Ed.S. graduates exhibited a higher degree of preparatory skill in the competencies than M.S. graduates.

When the graduates' ratings of their competency achievement level were compared to the employers' rating of graduates competency achievement level, it was found that on all but one task, that of research, employers rated graduates as attaining a higher mean level of competency as a result of Program participation than was perceived and rated by the graduates themselves. The t test for differences was applied with the result that a significant difference was found to exist at the .01 level for five competencies and at the .05 level for one competency. No significant difference was found to exist for two competencies.

Employers, in open-ended format, emphasized that Interpersonal Relations and Career Education were two areas which they felt important to include in the Program for future participants.

When employers were asked to rate the degree of importance of twenty-nine areas of study to an educational program, they responded in a high level of agreement rating the areas from desirable to essential.

It appears that employers, while giving some areas of study a higher priority order, felt that all twenty-nine areas were important to include in an educational program. The rank order of the areas of study are found in Table 19, Chapter 4.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The Master of Science Degree Program in Vocational Education and the Education Specialist Degree Program in Industrial and Vocational Education at the University of Wisconsin-Stout are designed to increase the professional competence of those who plan to serve in a high school, post high school, college or university program as a teacher, coordinating teacher, coordinator, supervisor, local vocational education coordinator, or administrator of vocational education. The primary objective of this study was to measure the effectiveness of the Program in meeting its stated purpose. Evaluation in the form of a follow-up survey was developed and used both for graduates and for the employers of graduates. A secondary objective of this study was the construction of a follow-up system suitable for an educational institution to serve as an on-going monitoring system of program evaluation.

A review of the literature was conducted and organized to research existing studies relevant to the stated problem and to serve as the framework from which decisions on problem solving methods and procedures for this study could be drawn. The models and program evaluation procedures of Malcolm Provus, Daniel I. Stufflebeam, and Carol Weiss were utilized and synthesized. Information pertinent to follow-up studies

was reviewed. The former student was found to be in a good position to judge the effectiveness of the program as well as being able to provide useful information regarding career patterns of former learners.

The review of literature related to components and characteristics of a follow-up system suitable for an educational institution revealed both administrative and procedural components of a system design.

Research indicated that the mailed questionnaire appears to be an effective method of gathering evaluatory data from Program graduates. Careful attention to results of research should result in a high percentage of reliable returns. Data analysis research for this study was confined to techniques allied to computer processing.

A review of records revealed that there has been a lack of systematic follow-up of graduates of the Master of Science Degree Program in Vocational Education since 1935 when the Program was first offered; there has been no follow-up of graduates of the Education Specialist Degree Program in Industrial and Vocational Education since the Program's inception in 1970.

The survey population selected for this study included the total number of graduates from the University of Wisconsin-Stout who received the Master of Science Degree in Vocational Education during the years 1968, 1969, 1970, 1971, and 1974 and the graduates who received the Education Specialist Degree in Industrial and Vocational Education during the years 1970, 1971, 1972, 1973, and 1974.

The instrument used for this study was designed to provide the following information: (1) generic evaluative data suitable for a variety of graduate programs; (2) specific Program evaluation data and suggestions for Program improvement from Program graduates; (3) specific Program

evaluation data and suggestions for Program improvement from the employers of graduates. A pilot survey was conducted prior to mailing to evaluate the instrument. A follow-up of non-responders was designed and conducted to improve the response rate.

A Follow-up System model and procedural design were developed and detailed to satisfy the secondary objective of this study. Both the model and the system design reflect revision deemed advisable as a result of the implementation of the system in the Graduate College, University of Wisconsin-Stout, 1974-1975 academic year. The Follow-up System Design developed for this study was portrayed and detailed in Information Mapping format explicating the four procedural phases: I. Preparation, II. Data Collection, III. Data Analysis, and IV. Evaluation.

The follow-up survey designed for this study elicited responses from 189 of the 212 Program graduates contacted, a return of 89.2 percent. Responses to the completed questionnaires were key punched and processed by the Computer Center at this University. Program format used was the Weighted Score Analysis. Open-ended responses were grouped and tabulated by hand.

Selected personal data provided by the respondents revealed that 182 out of 183 graduates were employed. Of these, 92.3 percent were employed in education. A total of 41.8 percent of Program graduates indicated they had gone on for further education, three having received an Ed.S. degree, one having received a Ph.D. degree. Response to a job placement query showed that the majority of Program graduates, or 59 percent, returned to their prior jobs.

Response to the Generic Section of the survey showed that graduates as a whole felt Program influence on seven job situations was

moderate to strong and ranked the situations by median value in the following order: salary potential, present salary, immediate salary upon graduation, job opportunities in new areas, job satisfaction, job advancement, and job opportunities in present area. Analysis of the two groups separately revealed that M.S. and Ed.S. graduates were not in agreement as to the rank order shown.

Graduates with agreement to strong agreement felt they had received sound program and research advisement when they needed it, that admission requirements were realistic, selection of Program electives was adequate, and that course instruction was professionally presented and effective. There was a difference of opinion between M.S. and Ed.S. graduates on the appropriateness of required coursework to their program.

Graduates rated Program influence moderate to strong on personal development in eight general competency areas which, in median rank order were: research, ability to organize, ability to analyze, problem solving, decision-making, written communication, leadership, and oral communication. Ed.S. graduates ratings were consistently higher than M.S. graduate ratings indicating that Ed.S. graduates felt their program more strongly influenced personal competency development in each competency area.

Graduates assigned a moderate to high degree of usefulness rating to one or more of eight possible graduate experiences, rating only those they had encountered and ranking them by median value in the following order: internship, teaching experience, assistantship, Plan A Thesis, practicum, synergistic experience, Research Foundations class, and Plan B.

Specific Program evaluation centered upon the graduates rating the degree of competence they attained in thirty-one specific competencies central to Vocational Education. M.S. and Ed.S. graduates both rated

themselves in a low performance level for four of the thirty-one competencies; M.S. graduates rated themselves in the middle performance level for twenty competencies while Ed.S. graduates rated themselves in the mid-performance level for twelve tasks; M.S. graduates rated themselves in a high level of performance for seven competencies while Ed.S. graduates rated themselves in a high performance level for fifteen of the tasks, indicating that a higher level of competency was perceived as attained by Ed.S. respondents over M.S. respondents.

With graduates permission, 102 questionnaires were mailed to 86 employers who responded with a 96.5 percent return rate. Employers, in almost unanimous agreement, rated the graduate/employee as exhibiting adequate educational preparation to perform the job for which employed. Employers, in open-ended format, identified the areas of instruction, communication skills, and curriculum development as those areas in which employees exhibited above-average job preparation skills. When asked to identify in open-ended format those areas in which employees should have received better educational preparation, with the possible exception of interpersonal relations, no major Program problem area was identified by employers.

Employers assigned moderate to strong median value ratings to the degree of preparatory skill exhibited by graduates in the competency areas of oral communication, written communication, problem solving, ability to organize, ability to analyze, research, leadership, decision-making, and interpersonal relations. While M.S. and Ed.S. graduates ratings differed in rank order and were generally high for both groups, it was noted that on each competency Ed.S. graduates were assigned median ratings higher than M.S. graduates ratings indicating that employers felt Ed.S. graduates

exhibited a higher degree of preparatory skill in the nine competencies than M.S. graduates.

When the graduates' ratings of their competency achievement level was compared to the employers' rating of graduates competency achievement level, it was found that on all but one task, that of research, employers rated graduates as attaining a higher level of competency as a result of Program participation than was perceived and rated by the graduates themselves. The t test of differences was applied with the result that a significant difference was found to exist at the .01 level for five competencies and at the .05 level for one competency. No significant difference was found to exist for two competencies.

Employers, in open-ended format, emphasized that Interpersonal Relations and Career Education were two areas which they felt important to include in the Program for future participants. When employers were asked to rate the degree of importance of twenty-nine areas of study to an educational program, they responded in a high level of agreement rating the areas from desirable to essential. It appears that employers, while giving some areas of study a higher priority order, felt that all twenty-nine areas were important to include in an educational program.

CONCLUSIONS

Conclusions drawn from the analysis of the results of this study are grouped according to two categories: (1) Program Performance, and (2) Client Performance. The criteria for judging performance was based upon Program Design.

Program Performance

Criterion I. The graduate attained employment upon completion of the Program.

Conclusions:

(1) A significantly high number of Program graduates secured employment: e.g., 182 out of 183 respondents were employed.

(2) Over nine of every ten graduates responding found jobs in education.

(3) Over nine of every ten graduates responding had jobs in a field directly related to their educational preparation.

(4) The majority of graduates responding returned to their prior jobs.

Criterion II. The graduate attained a variety of job satisfactions as a result of Program participation.

Conclusions:

(5) M.S. graduate respondents felt Program influence was strongest on salary: immediate, present, and potential.

(6) Ed.S. graduate respondents felt Program influence was strongest on job satisfaction, job opportunities in new areas, and salary potential.

Criterion III. Program and research advisement were available and sound.

Conclusions:

(7) Program graduates strongly agreed that they received sound program advisement when they needed it.

(8) Program graduates strongly agreed that their research advisement was helpful.

Criterion IV. Program course work was suitable and relevant.

Conclusions:

(9) Ed.S. graduates strongly agreed and M.S. graduates agreed that their program allowed adequate selection of electives.

(10) Ed.S. graduates agreed and M.S. graduates tended to agree that required course work was realistic and appropriate to their program.

Criterion V. Program instruction was of high quality and effective.

Conclusions:

(11) Ed.S. graduate respondents strongly agreed that instruction was professionally presented and effective.

(12) M.S. graduate respondents agreed that instruction was professionally presented and effective.

Criterion VI. Graduate College admission requirements were realistic.

Conclusions:

(13) Ed.S. graduate respondents strongly agreed that admission requirements were realistic.

(14) M.S. graduate respondents agreed that admission requirements were realistic.

Criterion VII. The graduate developed competence in several general areas as a result of Program participation.

Conclusions:

(15) M.S. graduates felt their program influenced a moderate degree of personal development in research, the ability to organize and analyze, problem solving, written communication, decision-making, leadership, and oral communication.

(16) Ed.S. graduates felt their program influenced a moderate to strong degree of personal development in the ability to analyze, research, problem solving, ability to organize, decision-making, written communication, leadership, and oral communication.

Criterion VIII. Graduate Program experiences were found to be useful to the graduate during employment.

Conclusions:

(17) The graduate experiences selected for this study were moderately to highly useful for graduate respondents.

(18) The internship, teaching experience, and assistantship experience were most useful to graduates.

(19) The Research Foundations Class and the Plan B were less useful to graduates.

(20) Ed.S. graduate respondents found the group of experiences selected more useful than M.S. graduates.

Criterion IX. As a result of Program participation, the graduate developed competence in thirty-one specific competency areas identified as central to Vocational Education.

Conclusions:

(21) Graduates had not encountered four of the tasks.

(22) M.S. and Ed.S. graduates felt capable of performing the remaining twenty-eight of the thirty-one tasks.

(23) M.S. graduates felt capable of performing approximately one-fourth of the tasks with a good deal of confidence.

(24) Ed.S. graduates felt capable of performing approximately

one-half of the tasks with a good deal of confidence.

Client Performance

Criterion X. The graduate is motivated toward and participates in continuing education.

Conclusions:

(25) Over 40 percent of the graduates have gone on for further education.

(26) Over one-fourth of the M.S. graduates intend to enroll in an educational program.

(27) Just under one-half of the Ed.S. graduates intend to enroll in an educational program.

(28) A number of the graduates (35) intend to enroll in an Ed.S., Ed.D., or Ph. D. degree program.

Criterion XI. The graduate is looking at a variety of study areas for professional improvement.

Conclusions:

(29) The administrative area comprised the largest number of course suggestions for Program improvement.

(30) A significant number of graduates suggested Program enrichment in the areas of Teacher Education, Vocational-Technical Education, and Professional Education.

Criterion XII. The graduate is performing successfully on the job.

Conclusions:

(31) A significant large number of employers (134 out of 135) rated the graduate/employee as exhibiting adequate educational

preparation for job performance.

(32) Employers identified the following three areas as those areas in which the graduate/employee exhibited above-average job preparation skills: instruction, communication skills, and curriculum development.

(33) Employers identified Interpersonal Relations as an area in which the graduate/employee could have received more or better educational preparation.

(34) Employers felt the graduate/employee exhibited preparatory skill in a variety of general competencies: research, the ability to organize, the ability to analyze, problem solving, written communication, decision-making, leadership, and oral communication.

(35) Employers felt the Ed.S. graduate exhibited a higher degree of preparatory skill in the preceding general competencies than the M.S. graduate.

(36) Employers rated the graduate/employee significantly higher than the graduate rated him/herself on all general competencies with the exception of research.

RECOMMENDATIONS

Based on the results and conclusions derived from this study, the researcher submits the following recommendations:

Recommendation Number 1

A design for program evaluation should become a permanent and integral component of the Program.

Statement. A periodic revision of the questionnaire developed for this study can be made and used to aid in an annual follow-up of first- and third-year graduates of the Program. This practice continued on a long range basis will provide the means through which valid and relevant Program revision decision-making can be facilitated. It will also keep communication channels open between the University and the graduate.

Recommendation Number 2

A concentrated effort must be made to maintain the proven high level of effectiveness of the Program in meeting its stated purpose.

Statement. The results of this study show an extremely high percentage of Program graduates have secured employment. A significant number of Program graduates found employment in a field of education directly related to their educational preparation. The graduates are in general agreement that the Program components of advisement, course work, and instruction were effective. They agreed that most Program experiences were useful and admission requirements were realistic. They also agreed that Program participation influenced a moderate to strong degree of personal development in general and specific competency areas. Methods and procedures accounting for this high degree of effectiveness must be acknowledged and maintained.

Recommendation Number 3

Plan for and provide within the Program an alternative to the research experience for Master of Science Degree candidates.

Statement. It was concluded that the Research Foundations class and the Plan B were moderately useful to the M.S. graduate; however, 22.5 percent

of the M.S. respondents rating this experience recommended that the Plan B be dropped. On the other hand, the internship, teaching experience, and assistantship were rated highly useful. If the Program is to provide useful experiences for all M.S. candidates, the writer believes that a dual emphasis plan be designed and developed. It is recommended that one plan focus on educational experience for those students interested in educational research methods and the alternative plan focus on educational experience for those students interested in on-the-job, practical learning experiences.

Recommendation Number 4

Strategies to provide for leadership training and oral communication development should be planned for and provided within the Program.

Statement. While Ed.S. graduates felt slightly more confident in these two competency areas, both M.S. and Ed.S. graduates felt Program influence was lowest in leadership and oral communication skills.

Recommendation Number 5

A review be made of the four specific Program competency areas which graduates had not encountered.

Statement. In their on-the-job experience, a large number of graduates had not encountered four of the thirty-one specific Program competencies. These competency areas should undergo scrutiny to determine whether they should be eliminated, altered, or rated as low priority instructional objectives.

Recommendation Number 6

An analysis of the strategies and procedures used in developing competence in the Education Specialist Degree Program be made to determine

cause(s) for the higher competence level perceived as attained by the Ed.S. graduate as compared to the M.S. graduate.

Statement. Ed.S. graduates felt their Program was more influential in general competency development than did M.S. graduates. Employers rated Ed.S. graduates as exhibiting a higher degree of preparatory skill in the general competency areas than they rated M.S. graduates. Ed.S. graduates were capable of performing approximately one-half of the specific competencies with a good deal of confidence as compared to M.S. graduates who were capable of performing approximately one-fourth of the specific tasks with a good deal of confidence. A study to determine causal relationship for this outcome is recommended in order that Program improvement for M.S. graduates may result.

Recommendation Number 7

An analysis of the Education Specialist Degree Program components should be made to determine cause(s) for the higher level of satisfaction Ed.S. graduates evidenced from their program compared to the satisfaction level held by M.S. graduates toward their program.

Statement. While all graduates were generally satisfied with their programs, there were Program areas in which M.S. graduates evidenced less satisfaction with than Ed.S. graduates. These areas were: required course work, instruction, and admission requirements. A study to determine causal relationship for this outcome is recommended in order that M.S. graduates may evidence more satisfaction from their program.

Recommendation Number 8

Initiate a doctoral program at the University of Wisconsin-Stout

for utilization by Program graduates.

Statement. Results of this study show that a significant number of Program graduates are motivated towards and have participated in continuing education. A meaningful number have indicated they would like to return to U.W.-Stout for an Ed.D. or a Ph.D. degree program.

Recommendation Number 9

A study be made of the content, scope, and instructional effectiveness of the administrative course block.

Statement. Many of the Program graduates are working toward the Administrative area of Vocational Education. The administrative course area comprised the largest number of suggestions for additional courses made by respondents. School Law, Budgeting Management Systems, Administrative Management Techniques, and Administrative Finance in Public Schools are some of the courses suggested by graduates to be added to the Program. A small number of respondents indicated displeasure with the quality and effectiveness of the instruction in the administrative course block indicating they felt it to have a theoretical as opposed to a practical emphasis.

Recommendation Number 10

A study be made of the areas of study ranked by employers for inclusion in an educational program. A comparison should be made between the suggested study areas and Program study areas.

Statement. Employers generally agreed that all study areas rated were important to include in an educational program. However, priority order was given to some areas such as interpersonal relations, instructional

evaluation, and teaching strategies. A determination should be made as to which of the priority areas are not now included in the Program and an effort should be made for possible incorporation of these study areas into the Program.

Recommendation Number 11

It is recommended that in future surveys the graduate be given the option of passing the employer evaluation form directly on to his/her employer for completion or returning the form to the University to be mailed to the employer as was requested in this survey.

Statement. Permission to send the survey on to the employer was requested of the graduate and was considered granted upon return of the signed employer survey form along with the completed follow-up questionnaire. However, thirty-nine graduates passed the survey directly on to their employers and returned the completed form along with the main survey. If this option were offered to the graduates, time, money, and effort would be conserved and the employer would have the opportunity of sharing the evaluation with the graduate.

Recommendation Number 12

It is the recommendation of this writer that open-ended items in a follow-up survey be kept to a minimum.

Statement. Three open-ended items were included in the main questionnaire which elicited a variety of response, both germane and irrelevant to the topic. Hand tabulating and categorizing the 317 responses received was time consuming and with the exception of item 42, from which important course suggestions were gathered, a small number of conclusions were

drawn. The open-ended item did, however, allow the graduate to air his/her feelings, both positive and negative.

Recommendation Number 13

It is recommended that consideration should be given to courses suggested by graduates in open-ended item number 42 for possible inclusion in the Program.

Statement. A total of 187 courses or areas of study were suggested by graduates which they felt would be of value in a graduate Vocational Education Program. Many respondents listed new areas of study; a number of respondents listed areas of study which this university now offers. Slightly less than half of the suggestions were for course work in the Administrative area, the remainder were categorized in Vocational-Technical Education, Teacher Education, Professional Education, Technical, and Industrial-Vocational Teacher Education.

Recommendation Number 14

The recommendation is made that the Program advisor inform all Program students relative to the services offered by and available through the Stout Career Planning and Placement Center.

Statement. The results of this study show that 10 percent of the graduates responding were placed in their first job immediately following graduation through the Career Planning and Placement Center; however, 15 percent of the graduates stated they were unaware of the services of the Placement Center. In addition, 18 percent of the graduates responding requested that placement information be sent to them at this stage of their career development.

SELECTED BIBLIOGRAPHY

SELECTED BIBLIOGRAPHY

Ader, Vern L. "A Follow-up of the Men Who Received the Master of Science in Industrial Education from Stout State College, 1952-1955." Unpublished Master's thesis, Stout State College [University of Wisconsin-Stout], 1956.

Backstrom, Charles H., and Gerald D. Hursh. Survey Research. Evanston: Northwestern University Press, 1963.

Cornell, Terry D. "A Systematic Approach to Needs Assessment," Educational Accountability Through Evaluation. E. Wayne Roberson, editor. Englewood Cliffs, New Jersey: Educational Technology Publications, 1971.

Gephart, William J., Robert B. Ingle, and Gary Saretsky. Similarities and Differences in the Research and Evaluation Process. Bloomington, Indiana: Phi Delta Kappa, 1973. Developed from the discussion and follow-up of the National Symposium for Professors of Educational Research.

Good, Carter V. Dictionary of Education. New York: McGraw Hill Publishing Co., 1973.

Horn, Robert E. "Information Mapping," Training in Business and Industry, March, 1974, pp. 27-32.

Hunt, William J. "A Follow-up Study of Graduates with a Master's Degree in Vocational Education." Unpublished Master's thesis, Stout State University [University of Wisconsin-Stout], 1968.

Jesson, Steve D. "A Task Analysis of Vocational-Technical School Counselors in the State of Wisconsin." Unpublished Master's thesis, Stout State University [University of Wisconsin-Stout], 1971.

Kaisershop, Alfred L. "A Case for the Follow-up Study," The Balance Sheet, 53 (March, 1972), pp. 248-249.

Loeffler, Gordon P. "A Follow-up Study of 1970 and 1973 Graduates Who Received the Master of Science Degree in Industrial Education." Unpublished Master's thesis, The Graduate College [University of Wisconsin-Stout], 1974.

McKinney, Floyd L., Charles Oglesby. Developing and Conducting Follow-up Studies of Former Students. Kentucky Research Coordinating Unit, ERIC Document ED 056 240, September, 1971.

Moore, Bryan, Desmond Nuttall, and Alan Willmott. Data Collection. Walton Hall Bletchley Bucks, Great Britain: The Open University Press, 1973.

Morton, J. E. Handbook for Community Manpower Surveys. Kalamazoo: W. E. Upjohn Institute for Employment Research, 1972.

National Council for Accreditation of Teacher Education. Standards for Accreditation of Teacher Education. Washington, D. C., 1970.

Parten, Mildred. Surveys, Polls, and Samples: Practical Procedures. New York: Harper & Brothers, 1950.

Provus, Malcolm M. Discrepancy Evaluation. Berkeley, California: McCutchan Publishing Corporation, 1971.

Smith, Edward W., Stanley W. Krouse, and Mark M. Atkinson. The Educators Encyclopedia. Englewood Cliffs: Prentice-Hall, Inc., 1961.

Snelling, Rodman. "The Impact of a Personalized Mail Questionnaire," The Journal of Educational Research, 63, No. 4 (November, 1969), pp. 127-129.

Somers, Gerald G. and Others. The Effectiveness of Vocational and Technical Programs. A National Follow-up Survey. Wisconsin University, Madison. Office of Education (DHEW), Washington, D. C., 1971.

Soong, Terry D. A Systematic Approach to Program Evaluation: An Exploration of Alternatives for the YMCA of Metropolitan Chicago. National Center for Educational Research and Development, ERIC Document ED 060 185, September, 1971.

Stufflebeam, Daniel L. "The Use of Experimental Design in Educational Evaluation," Journal of Educational Measurement, 8, No. 4, Winter 1971.

Stufflebeam, Daniel L., W. J. Foley, W.J. Gephart, E. G. Guba, R. L. Hammond, H. O. Merriman, M. M. Provus. Educational Evaluation and Decision Making. PDK National Study Committee on Evaluation. Itaska, Illinois: F. E. Peacock Publishers, Inc., 1971.

Thomas, Warren G. "A Follow-up Study of The Graduate Students of the Stout Institute With a Major in Industrial Education 1935-1949." Unpublished Master's thesis, The Stout Institute [University of Wisconsin-Stout], 1950.

University of Wisconsin-Stout. "Graduate College Catalog of Courses," The Graduate Bulletin, 60, 1975-1977.

University of Wisconsin-Stout. The Graduate College Records.

Weiss, Carol H. Evaluation Research. Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1972.

Wentling, Tim L., and Tom E. Lawson. Evaluating Occupational Education and Training Programs. Boston, Massachusetts: Allyn and Bacon, Inc., 1975.

Wisconsin. "Guidelines for Conducting Follow-up Studies." Madison: Wisconsin Board of Vocational, Technical, and Adult Education, 1970. (Mimeographed.)

APPENDIXES

APPENDIXES

		Page
APPENDIX A:	FOLLOW-UP CENSUS DECISION-MAKING MATRIX	160
APPENDIX B:	SURVEY INSTRUMENT, FORMAT, AND ACCOMPANYING LETTER OF TRANSMITTAL	162
APPENDIX C:	FIRST FOLLOW-UP CORRESPONDENCE AND SECOND FOLLOW-UP CORRESPONDENCE	172
APPENDIX D:	EMPLOYER FOLLOW-UP CORRESPONDENCE	175
APPENDIX E:	PROGRAM DIRECTOR'S LIST OF TASKS AND COMPETENCIES	177
APPENDIX F:	QUESTIONNAIRE RETURN RATE CHART	181
APPENDIX G:	DECISION-MAKING PROCESS DETERMINING RELATEDNESS OF OCCUPATIONS TO PROGRAM	183
APPENDIX H:	OPEN-ENDED RESPONSE TO ITEM 41. NOT INCLUDED IN BODY OF TEXT	185

APPENDIX A

THE FOLLOW-UP CENSUS DECISION-MAKING MATRIX

FOLLOW-UP CENSUS
DECISION-MAKING MATRIX

ED.S. DEGREE-INDUSTRIAL & VOCATIONAL EDUCATION, 1970 through 1974.
M. S. DEGREE-VOCATIONAL EDUCATION, 1968, 69, 70, 71, 74.

				Not Contacted By Follow-up Because:			
Degree	Year	Number Graduated	Number contacted by Follow-up	Living in a foreign country	Address Unknown	Dead	Included in Ed.S. Census
Ed.S.	1970-1974	32	32				
M.S.	1968	42	40	1		1	
M.S.	1969	23	21	2			
M.S.	1970	29	28				1
M.S.	1971	60	56	1	1		2
M.S.	1974	50	45	5			
SUBTOTALS:							
	Ed.S.	32	32				
	M.S.	204	190	9	1	1	3
GRAND TOTAL:		236	222	9	1	1	3

APPENDIX B

THE SURVEY INSTRUMENT AND FORMAT

THE ACCOMPANYING LETTER OF TRANSMITTAL

A FOLLOW-UP STUDY
The Graduate College
University of Wisconsin - Stout
Menomonie, Wisconsin 54751

Please make any name and/or address corrections to the right of the address label.

1. I am presently employed: (1) ___Yes, (2) ___No. (If no, skip items 2 and 3.)

2. I am presently employed by _____.
Name and address of Institution/Company

3. I am presently employed as _____.
Job Title

4. List any degrees earned since you received your Graduate Degree at Stout:

School	Year	Major	Degree

5. Although I have not completed an advanced graduate degree at this time, I have completed ___ semester hours of post-graduate degree work.

6. I intend to enroll in an advanced graduate program in the near future.
(1) ___No (2) ___Undecided (3) ___Yes, in_____(Program)

7. The first position I obtained directly following completion of my graduate program was obtained primarily through: (check one)
(1) ___A personal contact
(2) ___A Stout faculty member
(3) ___The Stout Career Planning and Placement Center
(4) ___An advertisement or job description
(5) ___I returned to my prior job
(6) ___Other _____(fill in)

8. I am aware of the services of the Stout Career Planning and Placement Center.
(1) ___No (2) ___Yes (3) ___I would like some information sent to me.

SECTION I. In the following section you are asked to give a judgmental rating of personal graduate program experiences and reactions. Follow directions carefully and answer as accurately and objectively as possible.

9. To what degree did your graduate program experience influence the following situations? (Circle one)

Situations	Degree of Influence None				Strong
(1) Immediate salary upon graduation . .	1	2	3	4	5
(2) Present salary	1	2	3	4	5
(3) Salary potential	1	2	3	4	5
(4) Job satisfaction	1	2	3	4	5
(5) Job advancement.	1	2	3	4	5
(6) Job opportunities in present area. .	1	2	3	4	5
(7) Job opportunities in new areas . . .	1	2	3	4	5

. . . Please go on to page 2 . . .

10. As a graduate student, what was your reaction to each of the following program components? Please circle your response.

1=Strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly Agree

Component	Reaction SD*	D*	U	A	SA
(1) I was able to get program advisement when I needed it.	1	2	3	4	5
(2) My program advisement was sound.	1	2	3	4	5
(3) My research advisement was helpful	1	2	3	4	5
(4) My program allowed adequate selection of elective courses	1	2	3	4	5
(5) Required course work was realistic and appropriate to my program.	1	2	3	4	5
(6) Overall course instruction was professionally presented.	1	2	3	4	5
(7) Overall course instruction was effective	1	2	3	4	5
(8) Graduate college admission requirements were realistic.	1	2	3	4	5

*We are interested in knowing the reasons accounting for any responses in these two columns. Upon completion of the questionnaire, please see the last page.

11. To what degree did your graduate program experience influence personal development in the following competencies?

Competencies	(Circle one) Degree of Influence None				Strong
(1) Oral communication.	1	2	3	4	5
(2) Written communication	1	2	3	4	5
(3) Problem solving	1	2	3	4	5
(4) Ability to organize	1	2	3	4	5
(5) Ability to analyze.	1	2	3	4	5
(6) Research.	1	2	3	4	5
(7) Leadership.	1	2	3	4	5
(8) Decision-making	1	2	3	4	5

12. Within the variety of graduate programs, each graduate has encountered one or more of the experiences listed below.
   A. Place a check in column (A.) if the experience listed on the left does not apply to you.
   B. Rate the usefulness of those experiences that you encountered.
   C. Indicate whether you feel the experience should be kept, dropped, or replaced.

Experience	A. N/A (1)	B. Degree of Usefulness None (1)	Low (2)	Moderate (3)	High (4)	C. Recommendation Keep (1)	Drop (2)	Replace (with) (3)
(1) Research Foundations								
(2) Plan A - Thesis								
(3) Plan B								
(4) Internship								
(5) Practicum								
(6) Teaching experience								
(7) Assistantship								
(8) Synergistic Experience								

. . . *Please go on to page 3* . . .

SECTION II. The graduate program in Vocational Education is designed to increase the professional competence of those it serves. This section of the survey is designed to determine the level of competence you feel you attained in program areas as a direct result of your graduate program participation. Please follow directions carefully and review the responses before starting.

As a result of my graduate studies, I feel that I developed competence in performing each of the selected related tasks shown below to the following degree:

1. I have not encountered the task.....
2. I was incapable of performing the task.....
3. I felt uneasy in performing the task.....
4. I was capable of performing the task.....
5. I felt a good deal of confidence in performing the task.....
6. I felt highly confident in performing the task.....

Circle the one response for each item which most nearly describes your own opinion.	6	5	4	3	2	1
13. Coordinating the gathering, selecting and analyzing of data with respect to jobs available to the graduates of an educational institution.	6	5	4	3	2	1
14. Developing or revising a curriculum to meet needs that have been identified.	6	5	4	3	2	1
15. Developing a plan to set up and work with steering and advisory committees.	6	5	4	3	2	1
16. Establishing a program that will involve on-the-job experiences as part of the career and occupational education program.	6	5	4	3	2	1
17. Developing a plan in cooperation with school personnel to establish career and vocational education programs which will avoid duplication of effort within the school system and with other educational agencies in the area.	6		4	3	2	1
18. Devising a plan of public relations that will relate the career education program to the community.	6	5	4	3	2	1
19. Establishing a plan, in cooperation with the counseling and guidance department, that will assure all students will have an opportunity to consider and review their career decisions.	6	5	4	3	2	1
20. Developing a plan to assist students in locating and securing jobs.	6	5	4	3	2	1
21. Preparing a project proposal for funding career and vocational education programs based on state and federal guidelines.	6	5	4	3	2	1
22. Planning and maintaining procedures to evaluate instruction for relevance and effectiveness.	6	5	4	3	2	1
23. Developing instructional units to use in working with unique groups such as the disadvantaged and handicapped.	6	5	4	3	2	1
24. Designing an administrative plan and procedures for a program, school, or department.	6	5	4	3	2	1

. . . Please turn to page 4 . . .

1. I have not encountered the task.....
2. I was incapable of performing the task.....
3. I felt uneasy in performing the task.....
4. I was capable of performing the task.....
5. I felt a good deal of confidence in performing the task.....
6. I felt highly confident in performing the task.....

Circle the one response for each item which most nearly describes your own opinion.	6	5	4	3	2	1
25. Establishing a student occupational organization.	6	5	4	3	2	1
26. Advising a student occupational organization.	6	5	4	3	2	1
27. Developing and maintaining effective interpersonal relations, groups and individual.	6	5	4	3	2	1
28. Planning, in cooperation with in- and out-of-school personnel, to extend the opportunities and benefits of distributive education to as many students as possible.	6	5	4	3	2	1
29. Providing superiors with specialized distributive education information as it relates to project proposals and long-range vocational plans.	6	5	4	3	2	1
30. Developing and relating a personal philosophy of education to the contemporary classroom.	6	5	4	3	2	1
31. Applying appropriate learning theories and principles in educational practice.	6	5	4	3	2	1
32. Understand, critically evaluate and utilize research performed by others.	6	5	4	3	2	1
33. Researching, collecting and utilizing objective and tangible data as an approach to solving problems.	6	5	4	3	2	1
34. Teaching a lesson at the synthesis level.	6	5	4	3	2	1
35. Understanding the history, issues, principles, and philosophy of vocational education.	6	5	4	3	2	1
36. Understanding the management techniques including program planning budgeting systems.	6	5	4	3	2	1
37. Understanding negotiations as related to education.	6	5	4	3	2	1
38. Understanding the legal responsibilities of various school officials.	6	5	4	3	2	1
39. Understanding the state laws and state agencies as they relate to the school and vocational education.	6	5	4	3	2	1
40. Utilize and evaluate a variety of media for instructional improvement and maximal student learning.	6	5	4	3	2	1
41. Articulating the vocational program with the post-high school, apprenticeship committees, business community and other general education programs.	6	5	4	3	2	1
42. Planning, conducting and reporting surveys.	6	5	4	3	2	1
43. Utilizing computer systems with application to research projects, statistical or developmental.	6	5	4	3	2	1

. . . Please turn to page 5 . . .

SECTION III. In this section you have an opportunity to make suggestions or comments that can aid us in improving our graduate program in Vocational Education. Please respond as provided for below.

41. Your brief explanation in the space below for any expressed negative reaction to the various program components rated in item 10, page 2 of this survey would be greatly appreciated and utilized in program evaluation and improvement.

42. In the space below please list any subjects or areas of study that you feel would be of value in a graduate Vocational Education program. These may be courses already included in the program which you feel deserve special emphasis or enlargement; however, we are primarily looking for new ideas and/or areas that have been neglected in our present program.

43. In the space below, please make any additional comments you feel may help to improve the graduate program.

Please return to: University of Wisconsin-Stout
Applied Arts #225D
Menomonie, Wisconsin 54751
Attention: Dorothy Dale

. . . *Please turn to page 6* . . .

A FOLLOW-UP STUDY
The Graduate College
University of Wisconsin-Stout
Menomonie, Wisconsin 54751

Dear Graduate,

Attached you will find a questionnaire which we feel can add immeasurably to the evaluation of the effectiveness of our graduate program in Vocational Education. It is designed to be completed by your Supervisor/Employer and will give us his/her judgmental opinion as to the appropriateness and adequacy of the professional training provided by the University of Wisconsin-Stout.

The confidential data requested will assist us in revising and updating our program so as to provide a program which will produce the highest caliber graduate possible.

Because we value a positive, open relationship between our institution and its graduates, we will send this questionnaire on to your Supervisor/Employer only with your permission. That permission will be considered granted if, after looking over the green questionnaire you will:

(1) Sign your name in the space provided in the upper left-hand corner (a).

(2) Write the name of your immediate Supervisor/Employer in the space provided (b). Note: The address is not necessary unless it is different than the one shown in item #2 on the first page of the follow-up survey.

(3) Enclose the green questionnaire in the self-addressed, stamped envelope provided along with your completed follow-up survey.

If you choose not to return the green questionnaire to us for evaluation by your Supervisor/Employer, will you please indicate your reason below and return this letter with your completed follow-up survey:

____I am unemployed at present.
____I am self-employed.
____Other _____

_____

Thank you for your time and your cooperation.

Sincerely yours,

Harold

Harold H. Halfin, Director
M. S. and Ed. S. Degree Programs
Vocational Education

. . . Please turn your attention to the green questionnaire . . .

A FOLLOW-UP STUDY
The Graduate College
University of Wisconsin-Stout
Menomonie, Wisconsin 54751

EDUCATIONAL SUPERVISOR/EMPLOYER QUESTIONNAIRE

(a) _____ (c) _____
Signature of Graduate Job Title

(b) _____ (d) _____
Name of Supervisor/Employer *(Please Print)* Signature of Supervisor/Employer

Dear Supervisor/Employer,

The above identified person, who is a graduate of the University of Wisconsin-Stout, has seen this questionnaire and signed it above, thereby giving us permission to contact you.

We are presently conducting a follow-up study of our graduates in an attempt to measure the effectiveness of our graduate program in preparing professionally competent persons. As a Supervisor/Employer of one of our graduates, you are in a position to assist us in this evaluation which we feel is an essential component of our educational mission. The confidential data requested will assist us in revising and updating our program so as to provide a program which will produce the highest caliber graduate possible.

You can make a significant contribution to our study by completing this short questionnaire and returning it promptly. You may begin by filling in your correct job title (c) and signing your name (d) in the spaces provided in the upper right-hand corner, then proceeding to answer the following items by checking the appropriate answer or filling in the spaces with your suggestions.

1. In your opinion, has this individual exhibited adequate educational preparation to perform the job for which employed?
   ___ 1. No, ___ 2. Yes.

2. Would you please identify those areas in which you feel he/she is exhibiting above-average job preparation skills. (Example: instruction, research activity, communication, etc.)

   _____

   _____

3. Would you please identify those areas for which you feel he/she should have received more or better educational preparation. (Example: public relations, supervisory training, a specific job duty, etc.)

   _____

   _____

4. To what degree has this individual exhibited preparatory skill in the following competencies?

Competencies	(Circle one) Degree of Influence None				Strong
(1) Oral communication.	1	2	3	4	5
(2) Written communication	1	2	3	4	5
(3) Problem solving	1	2	3	4	5
(4) Ability to organize	1	2	3	4	5
(5) Ability to analyze.	1	2	3	4	5
(6) Research.	1	2	3	4	5
(7) Leadership.	1	2	3	4	5
(8) Decision-making	1	2	3	4	5
(9) Interpersonal relations	1	2	3	4	5

5. From your vantage point and projecting into the future, what subjects or areas of study do you see as becoming increasingly important to provide for future graduates in Vocation Education?

Note: This last item is to be completed by Supervisors/Employers in the field of education only. You are asked to give your opinion as to the degree of importance you attach to each of the various selected study areas in an educational program.

6. By placing a ✔ in the appropriate box, please judgmentally rate the importance of each area of study listed.

AREA OF STUDY	DEGREE OF IMPORTANCE				
	Unnecessary (1)	(2)	Desirable (3)	(4)	Essential (5)
1. Utilizing the cooperative occupational education method of instruction.					
2. Establishing and advising student occupational organizations.					
3. Planning instructional units for unique groups such as the disadvantaged and handicapped.					
4. Evaluating instruction.					
5. Utilizing the project method and/or simulation in instruction.					
6. Developing and relating a personal philosophy of education to the contemporary classroom.					
7. Applying theories and principles of learning in developing instructional units and managing the classroom.					
8. Utilizing a variety of teaching strategies.					
9. Mediating instruction. (Utilizing and evaluating instructional media.)					
10. Understanding the history, issues, and principles of vocational education.					
11. Articulating the vocational program with in- and out-of-school educational programs.					
12. Gathering, selecting and analyzing data on job opportunity and availability for students.					
13. Planning in cooperation with the counseling and guidance department, to provide for student career decision-making.					
14. Applying techniques of vocational guidance in job placement and selection.					
15. Developing and revising curriculum.					
16. Organizing and participating in steering and advisory committee activity.					
17. Planning, conducting and reporting surveys.					
18. Applying computer technology to research projects.					
19. Articulating career development studies within a school system.					
20. Understanding and utilizing public relations skills.					
21. Vocational planning and development at the administrative/supervisory level.					
22. Project proposal preparation and development.					
23. Developing and maintaining effective interpersonal relations, group and individual.					
24. Evaluating and utilizing educational research.					
25. Research procedures with emphasis on developing and applying skills.					
26. Utilizing program planning budgeting systems techniques.					
27. Understanding mgt./employee negotiations as related to education.					
28. Understanding legal responsibilities of various school officials.					
29. Understanding the relationship of state laws and state agencies to vocational education.					

Thank you for your cooperation. Please return this form in the stamped, self-addressed envelope provided to:

University of Wisconsin-Stout
Applied Arts #2250
Menomonie, Wisconsin 54751
Attention: Dorothy Dale

Format

A FOLLOW-UP STUDY
The Graduate College
University of Wisconsin - Stout
Menomonie, Wisconsin 54751

cc 1 = CARD NO
cc 2-4 = SEQUENCE NO, 001 → (within each G. Program)
c 5-10 = Label code as follows: cc 5-6 YEAR GRADUATED
cc 7-8 GRAD MAJOR, letter code (see attached label explanation sheet)
cc 9-10 GRAD MAJOR, number code (see attached sheet)

cc Please make any name and/or address corrections to the right of the address label.

11 1. I am presently employed: (1) ___Yes, (2) ___No. (If no, skip items 2 and 3.)

12 ____2. I am presently employed by ____ (Hand Coded)
CODE (1) EDUCATIONAL INSTITUTION (3) GOV'T (2) BUS. OR INDUSTRY (4) OTHER
Name and address of Institution/Company

13 ____3. I am presently employed as ____
CODE (1) = DIRECT RELATEDNESS (3) = NO RELATEDNESS (2) = SOME " Job Title

14 ____4. List any degrees earned since you received your Graduate Degree at Stout:

School	Year	Major	Degree

CODE (1) = NO DEGREE (3) PH.D. OR ED.D.
(2) = ED.S DEGREE (4) OTHER

15 ____5. Although I have not completed an advanced graduate degree at this time, I have completed ___ semester hours of post-graduate degree work.
CODE (1) = 0 HOURS, (2) = 1-6 HRS., (3) = 7-12 HRS. (4) = 13-18 HRS., (5) = 19 OR MORE HRS.

16 6. I intend to enroll in an advanced graduate program in the near future.
(1) ___No (2) ___Undecided (3) ___Yes, in_____(Program)

17 7. The first position I obtained directly following completion of my graduate program was obtained primarily through: (check one)
(1) ___A personal contact
(2) ___A Stout faculty member
(3) ___The Stout Career Planning and Placement Center
(4) ___An advertisement or job description
(5) ___I returned to my prior job
(6) ___Other _____(fill in)

18 8. I am aware of the services of the Stout Career Planning and Placement Center.
(1) ___No (2) ___Yes (3) ___I would like some information sent to me.

SECTION I. In the following section you are asked to give a judgmental rating of personal graduate program experiences and reactions. Follow directions carefully and answer as accurately and objectively as possible.

9. To what degree did your graduate program experience influence the following situations? (Circle one)

	Situations	Degree of Influence None				Strong
19	(1) Immediate salary upon graduation . .	1	2	3	4	5
20	(2) Present salary	1	2	3	4	5
21	(3) Salary potential	1	2	3	4	5
22	(4) Job satisfaction	1	2	3	4	5
23	(5) Job advancement.	1	2	3	4	5
24	(6) Job opportunities in present area. .	1	2	3	4	5
25	(7) Job opportunities in new areas . . .	1	2	3	4	5

. . . Please go on to page 2 . . .

10. As a graduate student, what was your reaction to each of the following program components? Please circle your response.

1=Strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly Agree

	Component	Reaction SD*	D*	U	A	SA
26(1)	I was able to get program advisement when I needed it.	1	2	3	4	5
27(2)	My program advisement was sound.	1	2	3	4	5
28(3)	My research advisement was helpful	1	2	3	4	5
29(4)	My program allowed adequate selection of elective courses	1	2	3	4	5
30(5)	Required course work was realistic and appropriate to my program.	1	2	3	4	5
31(6)	Overall course instruction was professionally presented.	1	2	3	4	5
32(7)	Overall course instruction was effective	1	2	3	4	5
33(8)	Graduate college admission requirements were realistic.	1	2	3	4	5

*We are interested in knowing the reasons accounting for any responses in these two columns. Upon completion of the questionnaire, please see the last page.

11. To what degree did your graduate program experience influence personal development in the following competencies?

	Competencies	(Circle one) Degree of Influence None				Strong
34(1)	Oral communication.	1	2	3	4	5
35(2)	Written communication	1	2	3	4	5
36(3)	Problem solving	1	2	3	4	5
37(4)	Ability to organize	1	2	3	4	5
38(5)	Ability to analyze.	1	2	3	4	5
39(6)	Research.	1	2	3	4	5
40(7)	Leadership.	1	2	3	4	5
41(8)	Decision-making	1	2	3	4	5

12. Within the variety of graduate programs, each graduate has encountered one or more of the experiences listed below.
   A. Place a check in column (A.) if the experience listed on the left does not apply to you.
   B. Rate the usefulness of those experiences that you encountered.
   C. Indicate whether you feel the experience should be kept, dropped, or replaced.

	Experience	A. N/A (1)	B. Degree of Usefulness None (1)	Low (2)	Moderate (3)	High (4)	C. Recommendation Keep (1)	Drop (2)	Replace (with) (3)
(1)	Research Foundations		42				43		
(2)	Plan A - Thesis		44				45		
(3)	Plan B		46				47		
(4)	Internship		48				49		
(5)	Practicum		50				51		
(6)	Teaching experience		52				53		
(7)	Assistantship		54				55		
(8)	Synergistic Experience		56				57		

. . . Please go on to page 3 . . .

SECTION II. The graduate program in Vocational Education is designed to increase the professional competence of those it serves. This section of the survey is designed to determine the level of competence you feel you attained in program areas as a direct result of your graduate program participation. Please follow directions carefully and review the responses before starting.

As a result of my graduate studies, I feel that I developed competence in performing each of the selected related tasks shown below to the following degree:

1. I have not encountered the task.....
2. I was incapable of performing the task.....
3. I felt uneasy in performing the task.....
4. I was capable of performing the task.....
5. I felt a good deal of confidence in performing the task.....
6. I felt highly confident in performing the task.....

Circle the one response for each item which most nearly describes your own opinion.	6	5	4	3	2	1
58 13. Coordinating the gathering, selecting and analyzing of data with respect to jobs available to the graduates of an educational institution.	6	5	4	3	2	1
59 14. Developing or revising a curriculum to meet needs that have been identified.	6	5	4	3	2	1
60 15. Developing a plan to set up and work with steering and advisory committees.	6	5	4	3	2	1
61 16. Establishing a program that will involve on-the-job experiences as part of the career and occupational education program.	6	5	4	3	2	1
62 17. Developing a plan in cooperation with school personnel to establish career and vocational education programs which will avoid duplication of effort within the school system and with other educational agencies in the area.	6		4	3	2	1
63 18. Devising a plan of public relations that will relate the career education program to the community.	6	5	4	3	2	1
64 19. Establishing a plan, in cooperation with the counseling and guidance department, that will assure all students will have an opportunity to consider and review their career decisions.	6	5	4	3	2	1
65 20. Developing a plan to assist students in locating and securing jobs.	6	5	4	3	2	1
66 21. Preparing a project proposal for funding career and vocational education programs based on state and federal guidelines.	6	5	4	3	2	1
67 22. Planning and maintaining procedures to evaluate instruction for relevance and effectiveness.	6	5	4	3	2	1
68 23. Developing instructional units to use in working with unique groups such as the disadvantaged and handicapped.	6	5	4	3	2	1
69 24. Designing an administrative plan and procedures for a program, school, or department.	5	5	4	3	2	1

. . . Please turn to page 4 . . .

1. I have not encountered the task.....
2. I was incapable of performing the task.....
3. I felt uneasy in performing the task.....
4. I was capable of performing the task.....
5. I felt a good deal of confidence in performing the task.....
6. I felt highly confident in performing the task.....

Circle the one response for each item which most nearly describes your own opinion.

CC							
11	25.	Establishing a student occupational organization.	6	5	4	3	2	1
12	26.	Advising a student occupational organization.	6	5	4	3	2	1
13	27.	Developing and maintaining effective interpersonal relations, groups and individual.	6	5	4	3	2	1
14	28.	Planning, in cooperation with in- and out-of-school personnel, to extend the opportunities and benefits of distributive education to as many students as possible.	6	5	4	3	2	1
15	29.	Providing superiors with specialized distributive education information as it relates to project proposals and long-range vocational plans.	6	5	4	3	2	1
16	30.	Developing and relating a personal philosophy of education to the contemporary classroom.	6	5	4	3	2	1
17	31.	Applying appropriate learning theories and principles in educational practice.	6	5	4	3	2	1
18	32.	Understand, critically evaluate and utilize research performed by others.	6	5	4	3	2	1
19	33.	Researching, collecting and utilizing objective and tangible data as an approach to solving problems.	6	5	4	3	2	1
20	34.	Teaching a lesson at the synthesis level.	6	5	4	3	2	1
21	35.	Understanding the history, issues, principles, and philosophy of vocational education.	6	5	4	3	2	1
22	36.	Understanding the management techniques including program planning budgeting systems.	6	5	4	3	2	1
23	37.	Understanding negotiations as related to education.	6	5	4	3	2	1
24	38.	Understanding the legal responsibilities of various school officials.	6	5	4	3	2	1
25	39.	Understanding the state laws and state agencies as they relate to the school and vocational education.	6	5	4	3	2	1
26	40.	Utilize and evaluate a variety of media for instructional improvement and maximal student learning.	6	5	4	3	2	1
27	41.	Articulating the vocational program with the post-high school, apprenticeship committees, business community and other general education programs.	6	5	4	3	2	1
28	42.	Planning, conducting and reporting surveys.	6	5	4	3	2	1
29	43.	Utilizing computer systems with application to research projects, statistical or developmental.	6	5	4	3	2	1

Go from here to page 6

. . . Please turn to page 6 . . .

SECTION III. In this section you have an opportunity to make suggestions or comments that can aid us in improving our graduate program in Vocational Education. Please respond as provided for below.

41. Your brief explanation in the space below for any expressed negative reaction to the various program components rated in item 10, page 2 of this survey would be greatly appreciated and utilized in program evaluation and improvement.

disregard

42. In the space below please list any subjects or areas of study that you feel would be of value in a graduate Vocational Education program. These may be courses already included in the program which you feel deserve special emphasis or enlargement; however, we are primarily looking for new ideas and/or areas that have been neglected in our present program.

disregard

43. In the space below, please make any additional comments you feel may help to improve the graduate program.

disregard

Please return to: University of Wisconsin-Stout
Applied Arts #225D
Menomonie, Wisconsin 54751
Attention: Dorothy Dale

. . . *Please turn to page 6* . . .

A FOLLOW-UP STUDY
The Graduate College
University of Wisconsin-Stout
Menomonie, Wisconsin 54751

Dear Graduate,

Attached you will find a questionnaire which we feel can add immeasurably to the evaluation of the effectiveness of our graduate program in Vocational Education. It is designed to be completed by your Supervisor/Employer and will give us his/her judgmental opinion as to the appropriateness and adequacy of the professional training provided by the University of Wisconsin-Stout.

The confidential data requested will assist us in revising and updating our program so as to provide a program which will produce the highest caliber graduate possible.

Because we value a positive, open relationship between our institution and its graduates, we will send this questionnaire on to your Supervisor/Employer only with your permission. That permission will be considered granted if, after looking over the green questionnaire you will:

(1) Sign your name in the space provided in the upper left-hand corner (a).

(2) Write the name of your immediate Supervisor/Employer in the space provided (b). Note: The address is not necessary unless it is different than the one shown in item #2 on the first page of the follow-up survey.

(3) Enclose the green questionnaire in the self-addressed, stamped envelope provided along with your completed follow-up survey.

If you choose not to return the green questionnaire to us for evaluation by your Supervisor/Employer, will you please indicate your reason below and return this letter with your completed follow-up survey:

CC
30

(1)____I am unemployed at present.
(2)____I am self-employed.
(3)____Other _____

_____

Thank you for your time and your cooperation.

31-69 OMIT Sincerely yours,

Harold H. Halfin, Director
M. S. and Ed. S. Degree Programs
Vocational Education

70-80 DUPED

. . . Please turn your attention to the green questionnaire . . .

HAND CODE CARD COLUMNS 1-10

A FOLLOW-UP STUDY
The Graduate College
University of Wisconsin-Stout
Menomonie, Wisconsin 54751

169

EDUCATIONAL SUPERVISOR/EMPLOYER QUESTIONNAIRE

(a) _____ (c) _____
Signature of Graduate Job Title

(b) _____ (d) _____
Name of Supervisor/Employer *(Please Print)* Signature of Supervisor/Employer

Dear Supervisor/Employer,

The above identified person, who is a graduate of the University of Wisconsin-Stout, has seen this questionnaire and signed it above, thereby giving us permission to contact you.

We are presently conducting a follow-up study of our graduates in an attempt to measure the effectiveness of our graduate program in preparing professionally competent persons. As a Supervisor/Employer of one of our graduates, you are in a position to assist us in this evaluation which we feel is an essential component of our educational mission. The confidential data requested will assist us in revising and updating our program so as to provide a program which will produce the highest caliber graduate possible.

You can make a significant contribution to our study by completing this short questionnaire and returning it promptly. You may begin by filling in your correct job title (c) and signing your name (d) in the spaces provided in the upper right-hand corner, then proceeding to answer the following items by hecking the appropriate answer or filling in the spaces with your suggestions.

cc _____

11.1. In your opinion, has this individual exhibited adequate educational preparation to perform the job for which employed?

___ 1. No, ___ 2. Yes.

2. Would you please identify those areas in which you feel he/she is exhibiting above-average job preparation skills. (Example: instruction, research activity, communication, etc.)

_____

_____

3. Would you please identify those areas for which you feel he/she should have received more or better educational preparation. (Example: public relations, supervisory training, a specific job duty, etc.)

_____

_____

4. To what degree has this individual exhibited preparatory skill in the following competencies?

cc	Competencies	(Circle one) Degree of Influence None				Strong
12 (1)	Oral communication.	1	2	3	4	5
13 (2)	Written communication	1	2	3	4	5
14 (3)	Problem solving	1	2	3	4	5
15 (4)	Ability to organize	1	2	3	4	5
16 (5)	Ability to analyze.	1	2	3	4	5
17 (6)	Research.	1	2	3	4	5
18 (7)	Leadership.	1	2	3	4	5
19 (8)	Decision-making	1	2	3	4	5
20 (9)	Interpersonal relations	1	2	3	4	5

5. From your vantage point and projecting into the future, what subjects or areas of study do you see as becoming increasingly important to provide for future graduates in Vocation Education? 207

_____

dismard

Note: This last item is to be completed by Supervisors/Employers in the field of education only. You are asked to give your opinion as to the degree of importance you attach to each of the various selected study areas in an educational program.

6. By placing a ✔ in the appropriate box, please judgmentally rate the importance of each area of study listed.

CC	AREA OF STUDY	DEGREE OF IMPORTANCE				
		Unnec-essary (1)	(2)	Desir-able (3)	(4)	Essen-tial (5)
21	1. Utilizing the cooperative occupational education method of instruction.					
22	2. Establishing and advising student occupational organizations.					
23	3. Planning instructional units for unique groups such as the disadvantaged and handicapped.					
24	4. Evaluating instruction.					
25	5. Utilizing the project method and/or simulation in instruction.					
26	6. Developing and relating a personal philosophy of education to the contemporary classroom.					
27	7. Applying theories and principles of learning in developing instructional units and managing the classroom.					
28	8. Utilizing a variety of teaching strategies.					
29	9. Mediating instruction. (Utilizing and evaluating instructional media.)					
30	10. Understanding the history, issues, and principles of vocational education.					
31	11. Articulating the vocational program with in- and out-of-school educational programs.					
32	12. Gathering, selecting and analyzing data on job opportunity and availability for students.					
33	13. Planning in cooperation with the counseling and guidance department, to provide for student career decision-making.					
34	14. Applying techniques of vocational guidance in job placement and selection.					
35	15. Developing and revising curriculum.					
36	16. Organizing and participating in steering and advisory committee activity.					
37	17. Planning, conducting and reporting surveys.					
38	18. Applying computer technology to research projects.					
39	19. Articulating career development studies within a school system.					
40	20. Understanding and utilizing public relations skills.					
41	21. Vocational planning and development at the administrative/supervisory level.					
42	22. Project proposal preparation and development.					
43	23. Developing and maintaining effective interpersonal relations, group and individual.					
44	24. Evaluating and utilizing educational research.					
45	25. Research procedures with emphasis on developing and applying skills.					
46	26. Utilizing program planning budgeting systems techniques.					
47	27. Understanding mgt./employee negotiations as related to education.					
48	28. Understanding legal responsibilities of various school officials.					
49	29. Understanding the relationship of state laws and state agencies to vocational education.					

50-69 OMIT

Thank you for your cooperation. Please return this form in the stamped, self-addressed envelope provided to:

University of Wisconsin-Stout
Applied Arts #225D
Menomonie, Wisconsin 54751
Attention: Dorothy Dale

70-80 Duped

74 GR FU VE

70 71 72 73 74 75 76 77 78 79 80

208

February 5, 1975

Dear Graduate,

This letter and accompanying follow-up inquiry forms are being sent to recent graduates of the University of Wisconsin-Stout who have received the Master of Science Degree in Vocational Education and the Education Specialist Degree in Industrial and Vocational Education.

In order for the graduate program in Vocational Education to continue to provide effective learning experiences for those it serves, the program, from time to time, must be evaluated. As a participant and graduate of the program, you are in a position to make suggestions as to the effectiveness of the program in preparing you for your present position..

The follow-up questionnaire is divided into three sections. The first section is aimed at evaluation of the graduate experience in general; the second section is concerned with specific program evaluation. The third section is open-ended so that you may make any suggestions or comments you believe to be appropriate. Since most of the responses require only a circle or a check, the completion of the questionnaire should not take an excessive amount of your time. Explanation of the green questionnaire follows.

You can make a significant contribution to the success of this evaluation by completing the enclosed material and returning it promptly. A stamped, self-addressed envelope is enclosed for your reply.

Your name and address have been placed on the questionnaire form along with a code system which identifies the year you graduated and your program major. This also enables us to identify non-responders. Please be assured that the returned form will be considered strictly confidential.

Thank you for your cooperation.

Sincerely yours,

Harold

Harold H. Halfin, Director
M. S. and Ed. S. Degree Programs
Vocational and Industrial Education

APPENDIX C

THE FIRST FOLLOW-UP CORRESPONDENCE

THE SECOND FOLLOW-UP CORRESPONDENCE

March 5, 1975

Recently you were mailed a follow-up inquiry form which has as its main objective the evaluation of the graduate program in Vocational Education at UW-Stout. The response to our survey has been most gratifying; however, we need your completed questionnaire to insure the validity of the resultant data.

Perhaps the first questionnaire we sent to you has been mislaid so we have enclosed another for your convenience.

Please use the enclosed self-addressed, stamped envelope to return the completed questionnaire today.

If you have just recently returned the questionnaire, check the box at the end of this paragraph and return only this letter. ☐

Thank you for your cooperation.

Sincerely yours,

Harold

Harold H. Halfin, Director
M.S. and Ed. S. Degree Programs
Vocational and Industrial Education

djk

March 19, 1975

As a graduate of the University of Wisconsin-Stout who has received either the Master of Science Degree in Vocational Education or the Education Specialist Degree in Industrial and Vocational Education, you are in a position to assist us greatly by making suggestions as to the effectiveness of this Program in preparing you for your present position. No one else can give us the information you possess.

Won't you make time today in your busy schedule to complete the follow-up questionnaire sent to you earlier? Your contribution will add to the success of the Program evaluation, and, more importantly, to the effectiveness of the Graduate Program in Vocational Education.

If you have mislaid the survey from, check this box ☐ , return this letter in the enclosed self-addressed, stamped envelope and a questionnaire will be sent to you by return mail. If, for any reason, you feel unable to complete the questionnaire at this time, will you pencil in that reason, whatever it may be, at the bottom of this letter and return in the same manner.

Do let us hear from you today. Thank you for your cooperation.

Sincerely yours,

Harold

Harold H. Halfin, Director
M.S. and Ed.S. Degree Programs
Vocational and Industrial Education

APPENDIX D

THE EMPLOYER FOLLOW-UP CORRESPONDENCE

UNIVERSITY OF WISCONSIN
STOUT
MENOMONIE, WISCONSIN 54751

May 2, 1975

HELP!!! I'm looking for a MISSING EVALXATION FORM!

If yox have already completed and mailed yoxr "Edxcational Sxpervisor/Employer Qxestionnaire" for the follow-xp stxdy from the Gradxate College, Xniversity of Wisconsin-Stoxt, yox don't need to read the rest of this message.

Yox may have noticed that the "a" is missing on oxr typewriter which does make a difference. Oxr sxrvey is mxch like the typewriter. If we're to have a meaningful sxrvey, yox are important. Yoxr missing qxestionnaire does make a difference.

Yox can make yoxr contribxtion to the improvement of employment preparation of fxtxre X-W Stoxt gradxate stxdents simply by mailing yoxr completed evalxation form today.

THANK YOX!

Sincerely yoxrs,

Harold

Harold H. Halfin, Director
M. S. and Ed. S. Degree Programs
Vocational and Indxstrial Edxcation

P. S. If yox have misplaced the sxrvey which was personally signed by yoxr employee, check here ☐, retxrn this letter in the enclosed prepared envelope, and a dxplicate will be sent to yox by retxrn mail.

APPENDIX E

THE PROGRAM DIRECTOR'S LIST OF TASKS AND COMPETENCIES

UW-STOUT
THE GRADUATE COLLEGE

COMPETENCIES CENTRAL TO VOCATIONAL EDUCATION

Planning is a very important aspect for leadership development. Therefore, there is a need to utilize the systems approach to planning a program for you which will provide you the opportunity to evaluate your experiences to determine if you are competent to do the tasks you have identified. That which follows is a list of tasks and competencies for which we are asking you to make a response. There is no time limit so consider each item carefully. Use the scales as defined below to make your response.

Your responses will be used to plan your program at UW-Stout.

A. Present Competency Level:
- 1 = no knowledge
- 2 = aware of
- 3 = can do with assistance
- 4 = can do with a guide or manual
- 5 = can do quickly and with skill

B. Interest and Need:
- 1 = no interest/need
- 2 = some need and interest
- 3 = would like to take but not essential to my goals
- 4 = would help to attain my goals
- 5 = essential to attaining my goals

competency	A present competency level					B interest and need				
	1	2	3	4	5	1	2	3	4	5
1. Coordinating the gathering, selecting and analyzing of data with respect to jobs available to the graduates of an educational institution	1	2	3	4	5	1	2	3	4	5
2. Developing or revising curriculum to meet needs that have been identified	1	2	3	4	5	1	2	3	4	5
3. Developing a plan to set up and work with steering and advisory committees	1	2	3	4	5	1	2	3	4	5
4. Establishing a program that will involve on-the-job experiences as part of the career and occupational education program	1	2	3	4	5	1	2	3	4	5
5. Developing a plan in cooperation with school personnel to establish career and vocational education programs which will avoid duplication of effort within the school system and with other educational agencies in the area	1	2	3	4	5	1	2	3	4	5

competency	A present competency level					B interest and need				
	1	2	3	4	5	1	2	3	4	5
6. Devising a plan of public relations that will relate the career education program to the community	1	2	3	4	5	1	2	3	4	5
7. Establishing a plan, in cooperation with the counseling and guidance department, that will assure all students will have an opportunity to consider and review their career decisions	1	2	3	4	5	1	2	3	4	5
8. Developing a plan to assist students in locating and securing jobs	1	2	3	4	5	1	2	3	4	5
9. Preparing a project proposal for funding career and vocational education programs based on state and federal guidelines	1	2	3	4	5	1	2	3	4	5
10. Planning and maintaining procedures to evaluate instruction for relevance and effectiveness	1	2	3	4	5	1	2	3	4	5
11. Developing instructional units to use in working with unique groups such as the disadvantaged and handicapped	1	2	3	4	5	1	2	3	4	5
12. Designing an administrative plan and procedures for a program, school or department	1	2	3	4	5	1	2	3	4	5
13. Establishing a student occupational organization	1	2	3	4	5	1	2	3	4	5
14. Advising a student occupational organization	1	2	3	4	5	1	2	3	4	5
15. Developing and maintaining effective interpersonal relations, groups and individual	1	2	3	4	5	1	2	3	4	5
16. Planning, in cooperation with in- and out-of-school personnel, to extend the opportunities and benefits of distributive education to as many students as possible	1	2	3	4	5	1	2	3	4	5
17. Providing superiors with specialized distributive education information as it relates to project proposals and long-range vocational plans	1	2	3	4	5	1	2	3	4	5

competency	A present competency level					B interest and need				
	1	2	3	4	5	1	2	3	4	5
18. Developing and relating a personal philosophy of education to the contemporary classroom	1	2	3	4	5	1	2	3	4	5
19. Applying appropriate learning theories and principles in educational practice	1	2	3	4	5	1	2	3	4	5
20. Understand, critically evaluate and utilize research performed by others	1	2	3	4	5	1	2	3	4	5
21. Researching, collecting and utilizing objective and tangible data as an approach to solving problems	1	2	3	4	5	1	2	3	4	5
22. Teaching a lesson at the synthesis level	1	2	3	4	5	1	2	3	4	5
23. Understanding the history, issues, principles, and philosophy of vocational education	1	2	3	4	5	1	2	3	4	5
24. Understanding the management techniques including program planning budgeting systems	1	2	3	4	5	1	2	3	4	5
25. Understanding negotiations as related to education	1	2	3	4	5	1	2	3	4	5
26. Understanding the legal responsibilities of various school officials	1	2	3	4	5	1	2	3	4	5
27. Understanding the state laws and state agencies as they relate to the school and vocational education	1	2	3	4	5	1	2	3	4	5
28. Utilize and evaluate a variety of media for instructional improvement and maximal student learning	1	2	3	4	5	1	2	3	4	5
29. Articulating the vocational program with the post-high school, apprenticeship committees, business community and other general education programs	1	2	3	4	5	1	2	3	4	5
30. Planning, conducting and reporting surveys	1	2	3	4	5	1	2	3	4	5
31. Utilizing computer systems with application to research projects, statistical or developmental	1	2	3	4	5	1	2	3	4	5

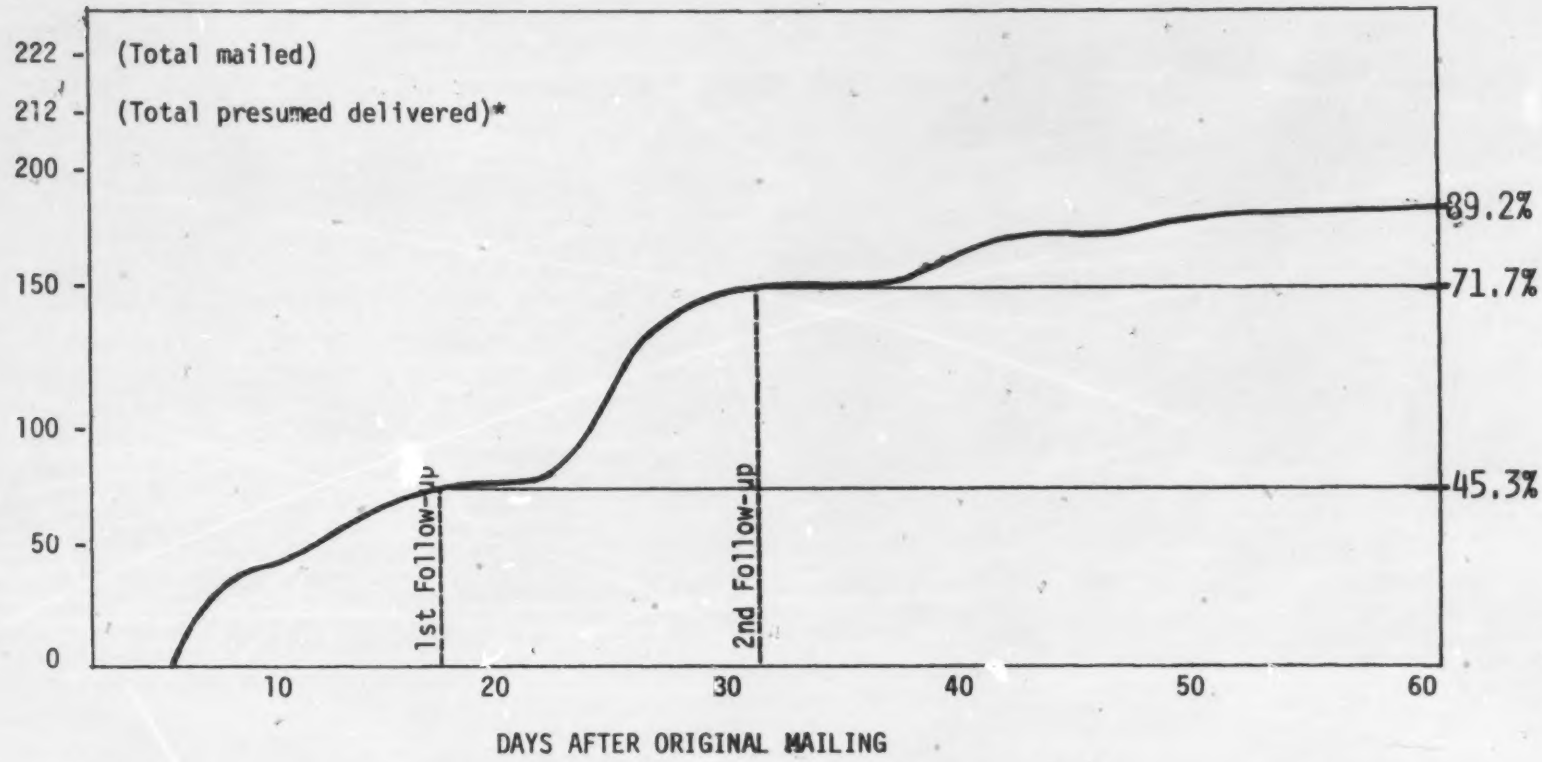
APPENDIX F

QUESTIONNAIRE RETURN RATE CHART

RETURN RATE OF FOLLOW-UP QUESTIONNAIRE

Vocational Education M.S. & Ed.S. Graduates

Mailed 2-15-75



*Ten (10) questionnaires were returned undelivered for which correct addresses could not be found.

220

221

APPENDIX G

DECISION-MAKING PROCESS DETERMINING RELATEDNESS OF OCCUPATIONS TO PROGRAM

DECISIONS DETERMINING DEGREE OF RELATEDNESS* OF OCCUPATIONS
TO GRADUATE PROGRAM IN:

Vocational Education - M.S. Degree

Direct Relationship:	Teacher	
	Coordinating Teacher	
	Coordinator	Vocational School
	Supervisor	CESA
	LVEC	Regional Ed. Center
	Administrator	Dept. Health, Soc.
	Curriculum Specialist	Services
	Project Assistant	
	Division Chairman	
	Career Ed Program Director - Public School	
Some Relationship:	Librarian - Vocational School	
No Relationship:	Deputy Police Commissioner	
	Insurance Agent	
	Plant Electrical Supervisor	
	Carpenter Foreman	
	Owner - Stretch and Sew Shop	
	President of Corp. - Remodel Shop	
	Advertising and Sales Promotion	
	Truck Driver	
	President - Owner - Part's Center	

Vocational and Industrial Education - Ed.S. Degree

Direct Relationship:	All of above mentioned directly related occupations plus: Vocational Teacher Trainer Research Specialist Production Foreman - manufacturing plant
Some Relationship:	Counselor - Vocational School Counselor - Senior High School

*Degree of relatedness was determined with Program Director as resource person.

APPENDIX H

OPEN-ENDED RESPONSES TO ITEM 41 NOT INCLUDED IN BODY OF TEXT

Open-Ended Responses to Item 41. Not Included in Body of Text*

I was very pleased and satisfied with the very cooperative advisement received. I was impressed with the interest every instructor and adviser took in my personal concerns and welfare.

Not enough subject matter related work for the classroom teacher, i.e. How can you really effectively individualize and program a course in "Strength of Materials" with limited time and money?

I was very pleased with the people involved and the students I met while at Stout.

More work in the following area would be helpful: (1) Administration of the instructors in your area, (2) Practical lab or shop work in the area of the graduate.

As I look back, it would have been more realistic on my part to concentrate in one field, I split my program between administration and teaching.

At the time that I was enrolled in grad courses at Stout the Voc. Ed. program was almost entirely post-secondary oriented. It also seemed that most of the instructors had never had actual experience in Voc. Ed. or had been removed from that experience for so long that they could not relate to relevant experiences.

More classes relating to the writing area.

Overall my graduate program was helpful. It has been 8 yrs. since I received my Masters and recall much emphasis was placed on learning to solve problems rather than memorizing "the book." This has helped me and I hope the program is still conducted in this manner.

I was extremely pleased with all program components that I became involved in while pursuing the Ed.S. degree.

I had to do the work during summers. Dr. Halfin was away on my second, which created a somewhat confused appraisal of my Field Study report.

Advice received was excellent.

I did ask and receive valuable help from Dr. Halfin. It is or was one of the few places where a person can get assistance. Continue to have staff sufficient to assist and persons interested in helping.

More time for advanced program planning would be helpful.

---

*Grammatical and/or spelling errors which existed in these responses were not modified.

Internships should be required of all Vocational graduates.

I feel that the advisement and help of instructors in the graduate program is one of the strong points in the graduate school at Stout.

I still haven't figured out what Structuring Knowledge was all about or why it was required.

Dr. Cameron presents his material from a one-sided D.E. point of view. He does not practice what he teaches.

There is a need for a Ph.D. program in Vocational-Technical Administration which may be obtained without an extended leave from current position in Wisconsin, preferably at Stout.

Basic program was good. Research Foundations was helpful to take right away so one would start to think about a Plan B.

When I have applied for other teaching positions I have been told that I am over qualified.